164.

UNIVERSITY OF CALIFORNIA
MUSEUM OF VERTEBRATE ZOOLOGY

MU

Palmer, F. G.
1934 - 1935 (part)

Nevada: Mineral, Lander, Nye Cos. 1934 — Section 1

Miscel.: S. F. Bay region; so. Calif. 1934 — Section 2

southern California and local 1934-35 — Section 3

Section 1

Palmer, F. G.

Nevada: Mineral, Lander and Lyon Cos.

1934

1934

Zoology Field Class; June 28 – Aug. 1, 1934
Nevada: Mineral, Lander, Lyon Cos.

Palmer, F.G.

Catalog of specimens
Nos. 36 – 244 74 pp.

Itinerary

Species accounts

Palmer 1934

Catalog

2 mi., SW Pine Grove, 7250 ft., Mineral Co., Nevada.

June 28, 1934

36 ♂ Dipodomys leucogenys 282-171-46-14 Wt. 69.3 gm.
37 ♂ Dipodomys leucogenys 280-170-47-14 Wt 64.5 g.
38 ♀ Peromyscus Truei - 171-80-23-25 Wt. 25 g.
Embryos 5 x 3 mm.
39 ♂ Peromyscus maniculatus - 152-66-20-18. Wt. 20 g.
40. ♂ Peromyscus maniculatus 150-70-19.5-18 Wt 20.5 g.
~~41 ♀ Dipodomys leucogenys. 305-189-47-15 Wt. 79.5 g.~~

June 29, 1934

41 ♀ Dipodomys leucogenys 305-189-47-15 Wt. 79.5 g.
42 ♂ Dipodomys leucogenys. 282-168-45-14 Wt 68 g.
43 ♀ Perognathus parvus - 155-77-25-8 Wt. 27.3 g. Embryos 3 x 19 mm.
44 ♀ Thomomys quadratus - 187-53-26-6 Wt. 94 g.
45 ♀ Perognathus parvus - 163-86-24-8 Wt 16.4 g.
46 ♂ Perognathus parvus 155-78-24-9 Wt. 18.9 g.

Mason Valley, 12 mi. E Wellington, 5000 ft., Lyon Co., Nev. June 30, 1934.

47 ♂ Perognathus l. panamintinus 136-72-19-6 — Wt 8.4 g
48 ♂ " " " 129-71-18-6 — Wt 8 g.
49 ♀ " " " 126-69-18-5.5 — Wt 6.9 g
50 ♀ " " " 128-70-18-6 — Wt. 7.3 g
51 ♂ " " " 129-72-19-6 — Wt. 8 g
52 ♀ Dipodomys microps levipes - 270-150-42-13 - Wt. 68.3 g
53 Cremidophorous. } Embryos 2 x 10 mm. Taken June 29
54 Phrynosoma. }

Mason Valley, 5 mi. N Pine Grove, 5300 ft.,
Mineral Co., Nev.

June 30, 1934

55 ♂ Dipodomys m. meriami -239-136-37-13 Wt 45 g.

12 mi. S Yerington, 4600 ft., W. Walker R.,
Lyon Co., Nev.

July 2, 1934

56 ♂ Euphagus cyanocephalus
57 ♀ " " Wt. 56 g.
58 ♀ " " Wt. 53.6 g
59 ♂ Turdus m. propinquas Wt. 82 g
60 Sciopterus occidentalis.

~~July 3, 1934~~

~~61 Pipilo maculatus Wt. 39 g.~~

10½ mi. S Yerington, 4500 ft., W. Walker R.,
Lyon Co., Nev.

July 3, 1934

61 ♂ Pipilo maculatus Wt. 39 g.
62 ♀ Tyrannus verticalis Wt. 28 g
63 ♂ Falco sparverius Wt. 125.5 g.
64 ♀ Colaptes cafer collaris Wt. 145.5 g.

July 4, 1934

65 ♀ Pipilo maculatus Wt. 40.5 g.
66 ♀ Sturnella neglecta Wt 81 g.
67 ♂ Ammodramus s. alaudinus Wt 15.5 g.
68 ♀ Agialitis vocifera - Wt 94.5 g.
69 ♂ Euphagus cyanocephalus Wt. 70 g.

Palmer 1934

10½ mi. S Yerington, 4500 ft. W. Walker R., Lyon Co., Nev.

July 4, 1934

70 ♂ Euplagus cyanocephalus Wt 60.7g.

July 5, 1934

71 ? Dryobates pubescens Wt 26.7g.
72 ♂ Petrochelidon a. albifrons Wt 20g.
73 ♂ Dendroica aestiva Wt. 8.5g
74 ♀ Dryobates pubescens Wt 26g.

July 6, 1934

75 ♂ Thryomanes bewicki Wt. 11g.

12 mi S Yerington, 4600 ft., W. Walker R., Lyon Co., Nev. July 6 1934

76 ♂ Thomomys bottae Wt. 110.5g
77 ♀ Dipodomys microps leviipes. 260-148-44-14 Wt 55.7g
Coll. by D. H. Johnson
78 ♂ Perognathus f. formosus 187-105-24+0 Wt 17.7g
Coll. by D. H. Johnson.

W. Walker R., 6 mi. S Yerington, 4500 ft., Lyon Co., Nev.

July 7, 1934

79 ♀ Reithrodontomys m. megalotis. 134-63-18-14 Wt. 10g.
80 ♂ Mus musculus 157-76-19-13 Wt, 13.5g.

3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

July 8, 1934

81 ♀ Onychomys torridus longicaudus 131-42-20-16 Wt. 19.2g
82 ♂ " " " -136-47-21-16- Wt. 20.9g

3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

July 8, 1934

83 ♀ Pipistrellus hesperus 74-28-6-11 Wt. 4.2g.
84 ♀ Microdipodops pallidus 152-84-29-10 Wt. 13.5g
85 ♀ " " 154-86-25-10 Wt 13.5g.
86 ♀ Reithrodontomys m. megalotis 138-60-17-14 Wt. 12.2g
87 ♀ " " " 139-62-17-14 Wt. 10.6g
88 ♂ Dipodomys microps 254-140-45-12. Wt 57g.
89 ♀ " " 256-146-45-12 Wt 60g.

Embryos 3 x 7 mm.

90 ♀ Dipodomys ordii 251-147-38-13 Wt. 55g.

Embryos 2 x 11 mm.

~~91 Callisaurus ventralis.~~

8 mi. SE Schurz, 4100 ft., Mineral Co., Nev.

July 8, 1934

91 Callisaurus ventralis.
92 ♀ Otocoris alpestris Wt. 27.3g.

July 9, 1934

93 ♂ Dipodomys m. merriami 225-130-38-12 Wt. 40.3g
94 ♂ Perognathus l. panamintinus 134-78-19-6 Wt. 7.3g
95 ♂ " " " 137-82-20-7 Wt. 9g.

Skull only.

96 ♀ Dipodomys ordii 222-123-38-14. Wt. 38.6g
97 Crotaphytus wislizenii
98 ♀ Perognathus l. panamintinus 129-69-19-6 Wt 6.2g
99 ♂ Microdipodops pallidus 165-92-25-9 Wt 13.5g

7 mi. N Schurz, 4600 ft., Mineral Co., Nev.
July 9, 1934

100 Uta s. stansburiana.

3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
July 9, 1934

101 Bufo boreas
102 " "
103 " "
104 " "
105 " "
106 " "
107 " "
108 " "
109 " "
110 " "
111 " "
112 " "
113 " "
114 " "
115 " "
116 Scaphiopus hammondii
117 " "

8 mi. SE Schurz, 4100 ft., Mineral Co., Nev.
July 10, 1934

118 ♀ Charadrius nivosus Wt. 41.5 g.

3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
July 11, 1934

119 Neotoma. Skull only - Pick up

3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

July 11, 1934

120 Thamnophis.

121 ♀ Taxidia Taxus 575-120-100-47 Wt 6 lb.

Cottonwood Creek, 6000 ft., Mt. Grant, Mineral Co., Nev.

July 11, 1934

122 Crotaphytus collaris

Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.

July 12, 1934

123 ♀ Perognathus parvus 180-93-25-9 Wt.

124 ♂ " " 155-80-22-8. Wt.

125 ♂ Peromyscus maniculatus-160-62-20-19 Wt. 19.2 g.

126 ♂ " " 171-70-20-20 Wt. 21.5 g.

127 ♂ " " 158-64-19-18 Wt. 19 g.

128 ♀ " " 172-73-21-17 Wt. 19.4 g

Skull only -

July 13, 1934

129 ♂ Perognathus parvus-179-94-23-9 Wt. 20.4 g

130 ♀ Eutamias minimus - 182-70-30-15 Wt. 34 g.

131 ♂ Peromyscus maniculatus-153-63-20-17 Wt. 20.8 g

132 ♂ Pooecetes gramineus confinis Wt. 24.8 g

Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co., Nev.

July 16, 1934

133 ♂ Sorex palustris navigator 158-88-20-5 Wt. 11.6 g

134 ♀ Calospermophilus lateralis 250-90-36-17 Wt. 180 g.

Palmer 1934

Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co. Nev.

July 16, 1934

135 Bufo
136 "
137 "
138 "
139 "
140 "
141 "
142 "
143 "
144 "

July 15. 1934

145 ♂ Cyanocitta stelleri Wt. 87.5 g.

July 17, 1934

146 ♂ Neotoma cinerea .412-155-42-33 Wt. 279 g.
147 ♂ Microtus mordax 171-57-22-14 Wt. 30.3 g.
E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

July 18, 1934

148 ♀ Thomomys bottae .215-70-29-6.5 Wt. 110 g.
Skull only - 149 ♂ Reithrodontomys m. megalotis .142-71-18-15 Wt. 12.8 g.
E. Walker R. 5000 ft. 5 mi. NW Morgans Ranch, Mineral Co. Nev.
July 18, 1934
150 ♀ Thomomys bottae 219-67-31-6.5 Wt. 129 g. Coll. E. R. Hall
E. Walker R., 5100 ft., Morgans Ranch, Mineral Co., Nev.

July 19, 1934

151 ♂ Thomomys bottae - 266-92-32-7 Wt. 175.6 g.

Palmer 1934

E. Walker R., 5100 ft., Morgans Ranch, Mineral Co., Nev.
July 19, 1934.

152 ♀ Thomomys bottae - 187-55-29-5 Wt. 73.3 g

E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.
July 19, 1934

153 ♀ Dipodomys merriami. 236-129-37-13 Wt. 50 g.
4 Embryos ×8 mm.

154 ♂ Dipodomys merriami. 238-135-37-14. Wt. 43.7 g

155 ♂ " " 251-150-36-12 Wt. 35.5 g

156 ♂ Neotoma lepida 271-108-29-28 Wt. 108.5 g

157 ♀ Peromyscus maniculatus 170-72-20-19 Wt. 25.2 g

158 ♂ " " 160-77-21-17 Wt. 18 g.

159 ♀ Perognathus P. panamintinus - 134-72-19-7 Wt. 8.4 g

160 ♀ " " " -135-76-20-7 Wt. 9.1 g

161 ♂ " " " 128-70-18-6.5. Wt. 8.1 g.

162 Scaphiopus.
Campbell Creek, 6900 ft., Lander Co., Nev.
July 21, 1934

163 ♂ Peromyscus maniculatus - 157-66-21-19 Wt. 21 g.

164 ♂ " " -157-67-21-18 Wt. 21 g.

165 ♀ " " - 143-63-19-15 Wt. 15 g.

166 ♀ " " - 153-61-20-18 Wt. 19.7 g.

Smiths Creek, 7500 ft., Lander Co., Nev.

167 Marmota flaviventris parvula ~~Skull only~~ July 21, 1934 Picked up.
July 22, 1934

168 ♂ Ochotona princeps - 160-10-27- Wt. 112 g.

169 ♀ Perognathus parvus - 166-87-25-8 Wt. 17.6 g.

Palmer 1934

Smiths Creek, 7500 ft., Lander Co., Nev.
July 22, 1934

170 ♀ Perognathus parvus - 173-95-23-8 Wt. 15g.
171 ♀ " " 159-73-24-9 Wt. 16.8g.
172 ♂ Sylvilagus nuttalli - 291-30-82-66. Wt. 533g.

Smiths Creek, 6800 ft., Lander Co., Nev.
July 23, 1934

173 ♂ Neotoma cinerea. 258-110-37-27 Wt. 111g. Skull Only.
174 ♀ Perognathus parvus. 184-96-23-9 Wt. 19.8g. Skull Only.
175 ♂ " " -166-94-24-8 Wt. 16g. Skull Only.
176 ♀ " " - 182-96-24-8. Wt. 17.2g.
177 ♂ Microtus mordax, 157-53-21-13 Wt. 21.8g.

Smiths Creek, 5800 ft., Lander Co., Nev.
July 24, 1934

178 ♂ Microtus mordax - 169-58-21-14 Wt. 36g.
179 ♂ Perognathus parvus - 168-90-24-9 Wt. 18.5g.
180 ♀ " " - 168-93-24-9 Wt. 17.7g.
181 ♂ Reithrodontomys megalotis 111-52-17-13 Wt. 8.2g.
182 ♀ Peromiscus maniculatus - 152-69-21-16 Wt. 17.9g
183 ♂ " " - 146-64-21-19 Wt. 19.5g.
184 ♂ " " - 157-70-21-18. Wt. 17.9g.
185 ♀ " " - 162-67-19-17. Wt. 24.4g.

2½ mi. NE Smiths Creek Ranch, 5800 ft., Lander Co., Nev.
July 24, 1934

186. ♂ Microdipodops megacephalus - 160-89-25-11 Wt. 11.7g. Coll. D.H. Johnson
187 ♂ " " - 167-93-25-11 Wt. 13.1g. Coll. D.H. Johnson

Palmer 1934

Smiths Creek, 5800 ft., Lander Co., Nev.
July 24, 1934

188 ♀ Myotis -87-42-9-15 Wt. 4.3g.

Smiths Creek, 6000 ft., Lander Co., Nev.
July 25, 1934

189 ♂ Neotoma lepida 260-122-31-28 Wt. 90.7g.
190 ♂ Peromyscus maniculatus -147-67-20-16 Wt. 16g.
191 ♂ " " -146-67-20-18 Wt. 18g.

Peterson Creek, 7000 ft., Shoshone Mts., Lander Co., Nev.
July 27, 1934

~~192~~
192 ♂ Eutamias minimus -183-81-29-14. Wt. 31g
193 ♂ " " -178-80-29-13 Wt. 31g.
194 ♂ " " -184-85-29-14 Wt. 32.9g.
195 ♀ Perognathus parvus -160-86-23-9 Wt. 14.1g.
196 ♂ " " -168-92-24-8.5 Wt. 17.2g
197 ♂ Peromyscus maniculatus -156-76-22-18 Wt. 20.8 g.
198 ♂ " " -162-72-21-18. Wt. 21.4g.
199 ♀ " " -150-64-19-18 Wt. 19.7g.
200 ♀ " " -157-65-20-19 Wt. 27.2g.
201 ♀ " " -164-72-20-18 Wt. 19.2g
202 ♂ " " -146-62-19-18 Wt. 19.5g.

Peterson Creek, 6500 ft., Shoshone Mts., Lander Co., Nev.
July 28, 1934

203 ♀ Peromyscus crinitus -167-94-20-18 Wt. 15.6g.
204 ♂ Neotoma lepida -308-137-32-30- Wt. 169.5g.
205 ♂ Callospermophilus lateralis -236-84-38-17 Wt. 103.1g.
206 Sciloporus graciosus
207 ♀ Eutamias quadrivittatus -204-93-32-19 Wt. 37.9g

Palmer 1934

Peterson Creek, 6500 ft., Shoshone Mts., Lander Co., Nev.
July 28, 1934

208 ♂ Eutamias minimus - 184-87-28-18 Wt. 31g.

Peterson Creek, 7800 ft., Shoshone Mts., Lander Co., Nev.
July 28, 1934

209 ♂ Ochotona princeps 160-( )-29-21 Wt. 110.8g.

Peterson Creek, 7000 ft., Shoshone Mts., Lander Co., Nev.
July 28, 1934

210 ♂ Odocoileus hemionus - Skull Only - Pick Up.

Peterson Creek, 7600 ft., Shoshone Mts., Lander Co. Nev.
July 29, 1934

211 ♀ Eutamias quadrivittatus - [redacted] 216-95-31-17 Wt. 56g.

212 ♀ Ochotona princeps - 180-14-29-24. Wt. 120.5g

1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
July 30, 1934

213 ♂ Microdipodops pallidus - 162-93-26-11 Wt. 15g

214 ♂ " " 164-92-26-11 Wt. 13g

~~214~~ ~~"~~ ~~"~~ ~~Wt. 14.2g.~~

215 ♀ Dipodomys merriami. - 243-146-37-13 Wt. 40.5g

216 ♂ " " 245-146-38-12 Wt. 36g.

217 ♀ " " 227-139-34-[redacted]13 Wt. 38g.

218 ♂ " " 238-143-35-11 Wt. 35.2g.

219 ♀ Dipodomys ordii - 234-130-39-13 Wt. 42.3g.

220 ♂ " " 232-133-39-13 Wt. 50g.

221 ♀ Microdipodops pallidus - 160-95-26-10. Wt. 14.2g.

July 31, 1934

222 ♀ Onachomys leucogaster - 152-48-20-20 Wt. 32.3g

223 ♂ Perognathus l. panamintinus - 141-73-19-8 Wt. 8.2g.

Palmer 1934

1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
July 31, 1934

224 ♂ Microdipodops pallidus -147-81-25-11 Wt. 12.5g.
225 ♂ " " -156-93-26-10 Wt. 14.5g.
226 ♀ " " -162-89-25.5-10 Wt. 15.6g.
227 ♀ " " -149-84-25-10 Wt. 11.4g.
228 ♂ Dipodomys ordii -231-132-40-12.5 Wt. 45.7g.
229 ♀ " deserti -340-197-54-17 Wt. 118.8g.

½ mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
July 31, 1934

230 ♀ Onachomys torridus -146-52-20-[V5] Wt. 20.5g.
231 ♂ Dipodomys. microps -262-159-42-14 Wt. 50g.
Skull only. 232 ♂ Perognathus l. panamintinus -136-78-[V9]-( ) Wt. 8.9g.
Skull only. 233 ♀ " " " -133-73-[19]-6 Wt. 6.8g

1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
July 31, 1934

234 ♀ Microdipodops pallidus -152-82-25-10 Wt. 10.6g

4 mi. W Hazen, 4250 ft., Lyon Co., Nev
Aug 1, 1934

235. ♂ Perognathus l. panamintinus -138-75-19-6 Wt. 7.5g.
236 ♂ " " " -131-73-19-6. Wt. 6.6g
237 ♀ " " " -136-72-20-6.5 Wt. 7.7g.
238 ♀ Mus musculus -158-77-19-13 Wt. 13.9g
239 ♂ Dipodomys microps -278-161-43-13 Wt. 58g.
240 ♀ " " [253]-[140]-42-13 Wt. 57.5g
241 ♀ " " 274-163-42-13 Wt. 50g.
242 ♀ " " 269-157-41-13 Wt. 51.7g.

Palmer 1934

4 mi. W Hazen, 4250 ft., Lyon Co., Nev.
Aug. 6, 1934

243 ♂ Dipodomys merriami -250-146-37-13 Wt. 44.2 g
244 ♂ " " -238-130-37-13 Wt. 42.8 g

Palmer 1934

Itinerary

June 27 2 mi. SW Pine Grove, 7250 ft. Mineral Co. Nevada.

Left Berkeley Calif. at 9 A.M. June 26, 1934 in three automobiles with party of seven persons as follows: J. Stanley Brode, Elton R. Edge, Dawson A. Feathers, E. Raymond Hall, David H. Johnson, Fletcher G. Palmer, and Ward C. Russell. Drove via Carquinez Bridge, Sacramento, Placerville, South end of Lake Tahoe, Glenbrook, Carson City, Minden, Gardnerville to a point in the hills about 15 mis S of Gardnerville where we slept beside the road. Left our overnight camp at 6 A.M and drove via Wellington eastward along the West Walker River into Mason Valley. Thence southward to a point 4½ mi. NE of Pine Grove, turned right and drove up a Canyon past Pine Grove to camp site as given at head of page; arrived here about 11:30 A.M.

At 4:00 P.M. [redacted] set 40 government sized mouse traps and two rattraps in a line beginning 50 yds. north

June 27 (cont.) of camp, the line running north. 4 traps were set in an old road, about 10 traps in Artemisia and Chrysothamnus and about 15 traps on a rocky ridge among Piñons. Here the line swung east and back to the south with 10 traps set in Artemisia and Chrysothamnus. The two rat traps were set in and old cabin about 100 ft. N of camp.

June 28 Caught 13 mammals of the following species: 2 Dipodomys leucogenys, 1 Peromyscus truei truei, and 10 Peromyscus maniculatus sonoriensis. 2 sonoriensis mouse and 2 rat

Set 45 traps. 36 were set in a line starting 200 yds. N of camp and running east toward the dry creek bed. When the creek bed was reached the line turned N.E to follow it then swung east and finally back toward camp. Traps were about 50 ft. apart. The territory trapped was mainly sandy soil with Artemisia and Chrysothamnus. 9 traps were set on a rocky ridge among Piñons.

June 28 Cont.
2 rat traps were set in an old cabin about 100 yt. N. of camp.

June 29. Caught 16 mammals of the following species: 2 Dipodomys leucogenys, 3 Perognathus parvus, 1 Eutamias minimus, 10 Peromyscus maniculatus. Drove north from camp with Hall and Brode and set traps at two places as follows: Mason Valley 12 mi. E Wellington, 5000 ft., Lyon Co., Nev. and Mason Valley, 5 mi. N Pine Grove, 5300 ft., Mineral Co., Nev. Traps were set among Chrysothamnus, Sarcobatus and Atriplex. Set 85 gov.-sized mouse traps in all.

June 30. Mason Valley, 12 mi. E Wellington, 5000 ft., Lyon Co., Nev. Caught 13 Perognathus longimembris panamintinus and 7 Dipodomys microps leviper in 46 gov. sized mouse traps.
Mason Valley, 5 mi. N Pine Grove, 5300 ft., Mineral Co., Nev. Caught 16 Perognathus l. panamintinus and 1 Dipodomys m. meriami in 39 gov.-sized mouse traps

July 1 2 mi. S Pine Grove, 7250 ft., Mineral Co., Nev.
General description of the country

July 1 (Cont.) around camp. Camp was in a small grassy area formed by seepage from a spring. In the dry canyon bottom were wild currant, Artemisia, and Chrysothamnus. These ran up on the sandy parts of slopes into the edge of the Piñons which extended up on the ridges which run generally north ~~[illegible]~~ from the higher parts of the mountain range. ~~[illegible]~~.

Broke camp 9 A.M. Drove north down canyon with the three cars to a point 12 mi. N of camp, there turned west for 3 mi. and camped ~~[illegible]~~ 12 mi. S Yerington, 4600 ft., W. Walker R., Lyon Co., Nev.

July 1. (Cont.) Shot five birds of the following species: 1 Rock Wren, 1 Yellow Warbler, 1 Say Phoebe and 2 Bluebirds (Juv.) About 4 o'clock drove with Dr. E.R. Hall and Ward C. Russell to a point about 6 mi. NE Camp. There saw several old muskrat signs in small ponds and irrigation canals. Along the river near camp noted tracks of Raccoon, Skunk also workings of moles.

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July 2 12 mi. S Yerington, 4600 ft., W. Walker R., Lyon Co., Nev.

Shot one Long-tailed Chat in the Willows near camp. Shot one Sceloporus occidentalis on a rock.

In the willows and Buffalo-bushes near camp saw Lazuli Bunting, Spotted Towhee, Linnet and Yellow Warblers. Saw many Mourning Doves flying overhead and perched in Cottonwood trees. In Cottonwood trees also saw Robins and an Oriole of some species. Flocks of Brewer and Red-winged Blackbirds flew over rather high in the air both mornings and evenings. Saw a Red-tailed Hawk flying low over the rocky hillside north of camp. Later saw a Buzzard about the same place which soared into the pass in the direction of Smith Valley.

July 3. Heard a Song Sparrow singing early this morning in the willows across the stream from camp. Drove E from camp about 1½ mi. with Ward Russell. In an alfalfa field saw Red-winged

July 3 (cont.) Blackbirds and Western Meadowlarks. Near a haystack saw two Quail on the ground. Stopped near the river and hunted thru a grove of Cottonwoods. These were on a moist flat covered with grass and melilotus. In the Cottonwoods shot a Sparrow-Hawk, Flicker, and a Kingbird. In Buffalo-brush on the edge of the Cottonwoods shot a Spotted Towhee. Also saw here Killdeer, Robins, Yellow Warblers and Ward Ruesill shot two Downy Woodpeckers. This place designated as: 10½ mi. S Yerington, 4500 ft., W. Walker R., Lyon Co., Nev.

July 4 Drove 1½ mi. N. Ex with E.R. Hall and hunted birds with David Johnson. Hunted first across a marshy field covered with salt-grass and reeds. Here 2 shot 1 Redwinged Blackbird, 1 Killdeer, 1 Savanah Sparrow, 1 Meadowlark, also saw here Quail, Cliff Swallows, Brewer Blackbirds and Magpies. Then hunted thru a grove of Cottonwood trees with grassy ground cover along by West Walker River. Here shot 7 Brewer Blackbirds and saw: Arkansas Kingbirds, Sparrow

July 4 cont. Hawks, Meadowlarks, Red-winged Blackbirds, Western Robins, Ins. Willows along the stream saw a Yellow Warbler and another Warbler with yellow belly and greenish back. Some species of gull with yellow bill, white belly, gray back and black wing tips flew west, upstream. A Belted Kingfisher flew downstream and lit on a branch over the water.

July 5 Drove 1½ mi. NE to the same place where I collected birds on July 3 and 4. Went with W. Russell and E. R. Edge. Here I shot one ♂ Red-winged Blackbird in a small tule marsh. In this same place I observed 3 Yellowthroats and several Song Sparrows. Near the stream I collected one ♂ Cliff Swallow. In the Cottonwood trees I collected two Downy Woodpeckers and one Yellow Warbler. What appeared to be a Black-Crowned Night Heron flew rather high overhead in the direction of the stream. Set 5 gopher traps in runways at camp.

July 6 Drove 1½ mi. NE camp with W. C. Russell and E. R. Edge and here shot a Bewick Wren. The bird was perched

July 6 (cont.) a few feet above the ground in some dead bushes underneath a large Cottonwood tree. The actions of the bird were much like those of the Vigor's Bewick Wren of the Berkeley, Calif. region. It hopped about with tail cocked up at an angle and was singing vigorously when shot.

Caught one gopher - Thomomys bottae cinereus in one of the 5 traps set near camp.

Set 4 traps in Meadow-mouse runway in grass on the edge of an irrigation canal. Trapped with E.R. Hall. [redacted] W. Walker R., 6 mi. S Yerington, 4500 ft., Lyon Co., Nev.

July 7 Caught one Reithrodontomys m. megalotis and one Mus musculus in 4 traps.

Broke camp 8:15 A.M. and drove to a point about 20 mi ENE of this camp. Camp was established 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

Set 74 gov.-sized mouse traps mainly on sandy or gravelly soil or on hard adobe flats in Atriplex, Sarcobatus, Chrysothamnus and Chenopodium.

In the evening near camp, shot one Pipistrellus as it was flying around

July 7 (Cont.) the Cottonwood trees.

July 8. Caught mammals of the following species: 18 Dipodomys merriami, 7 Dipodomys micaops, 2 Dipodomys ordii, 5 Perognathus panamintinus, 2 Onychomys torridus longicaudus, 2 Microdipodops pallidus, 1 Peromyscus maniculatus and 3 Reithrodontomys m. megalotis.

Drove SE from Camp with Ward Russell to a point 8 mi. SE Schurz, 4100 ft., Mineral Co., Nev. This is near the East shore of Walker Lake. Here I shot one ♀ Horned Lark in the sand dunes and one Callisaurus ventralis. Also set 36 Gop.-sized mouse traps on some small sand dunes and on ~~sand~~ coarser sand in Atriplex, Sarcobatus and Chenopodium

July 9 Caught mammals of the following species: 7 Microdipodops pallidus, 4 Perognathus panamintinus, 1 Dipodomys merriami, 1 Dipodomys ordii in 36 traps. On the way back to camp shot one Crotaphytus wislizenii.

Drove north from camp thru Schurz ~~east~~ - with E. R. Hall and at a point 7 mi. N Schurz, 4600 ft., Mineral Co., Nev.,

collected one Uta s. stansburiana.
In the evening collected 40 toads - Bufo boreas and two Spadefoot toads - Scaphiopus Hammondii with E.R. Hall in the shallow stream near camp

July 10 Drove from camp to the north end of Walker Lake, 8 mi. SE Schurz, 4100 ft., Mineral Co., Nev. Here on the muddy shore of the lake I shot one Snowy Plover.

At camp made six sets for gophers in moist soil along the stream. Mounds were usually between the very moist edge of the stream and the dry sand of surrounding country.

July 11. Caught two gophers - Thomomys bottae and shot a young ♀ Badger by the stream. Also caught a specimen of Thamnophis in the grass by the stream side.

Description of camp 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.:

Camp was located in a grove of large Cottonwood trees 40-60 ft. high which covered the higher banks of the streams. The stream, which ran southwest of camp was rather small, slow running with sandy

banks covered with grass and young Cottonwoods. To the East and West of the large Cottonwood trees stretched level sandy country with a moderately sparse growth of Artemisia, Atriplex, Chrysothamnus, Sarcobatus and Chenopodium. This cover averaged 1½ to 2½ ft. in height.

Broke camp and drove north to Schurz. Then drove S along the shore of Walker Lake. Turned west at the mouth of Cottonwood creek and drove up Cottonwood Canyon to an altitude of 6000 ft. where I collected one specimen of Crotaphytus collaris in the rocks. Drove on up Cottonwood Creek toward Mt. Grant and camped about 4 o'clock at a place designated as: Lapon Canyon 8900 ft., Mt. Grant, Mineral Co., Nev.

In the evening I set 75 Gov. sized mouse traps across the top of a low hill with a rather thick cover of Artemisia 1 to 2½ ft. tall. The soil was rather coarse sand and appeared to be decomposed granite. A few traps were set in outcrops of rather large granite boulders with Mountain Mahogony and some Artemisia

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July 12 Caught mammals of the following species: 24 Peromyscus maniculatus, 2 Perognathus parvus, 1 Eutamias minimus. I also shot a Sage Thrasher and observed Brewer Sparrows, Mountain Bluebirds, Green-tailed Towhees and one Rock-Wren.

Set 60 gov.-sized mouse traps. 45 were set across a low sandy hill with Artemisia and then down to a small canyon W of Camp. This place had a small stream 1-1½ ft. across and was grassy with a rather dense growth of Willows. Here I set 15 traps in Microtus runways in the grass along by the water. I also set 5 rat traps in the rocks farther up the hill.

July 13 Caught mammals of the following species: 12 Peromyscus maniculatus, 2 Perognathus parvus, 1 Eutamias minimus. All were caught in the Artemisia with the exception of one Peromyscus which was taken in a rat trap in a rock-outcrop. Left the 15 traps set in Microtus runways. At noon visited these traps again and found one Callospermophilus lateralis and one very small Microtus montanus in the traps. I reset the

traps and left them there. In the willows I shot a Junco and a Chickadee. Here I also observed White-crowned Sparrows, Rufous Hummingbird, Green-tailed Towhees, Steller Jay, and some small species of Wren. Farther up this canyon the stream had disappeared but there was still some grass. Here I shot a Vesper Sparrow and a Brewer Sparrow. In the Artemisia and Mountain Mahogany I observed Piñon Jays and a flock of Horned Larks.

Set 50 traps in Microtus runways in boggy ground south of camp. Here I observed a Meadowlark and a small flock of Red-winged Blackbirds. In the boggy ground I caught one Bufo.

July 14. Caught mammals of the following species: 10 Microtus montanus taken in the 50 traps set in the bog south of camp and 3 Microtus montanus taken in the 15 traps in canyon West of camp.

Moved camp down Cottonwood Creek to 7400 ft. elevation. Camped in dry flat in the canyon bottom near a small stream lined with Quaking Aspens and Willows. The sides of the canyon were mainly broken rock covered with Piñons.

Palmer 1934

July 15 Cottonwood Creek, 7400 ft. Mt. Grant, Mineral Co., Nev.

In the Quaking Aspens and Willows along the stream shot birds of the following kinds: 3 Fox Sparrows, 1 Green-tailed Towhee, 1 Steller Jay, 1 Audubon Warbler, 1 Hammond Flycatcher.

In the evening set 45 Gov.-sized mouse traps along Cottonwood Creek which is about 1-2½ ft. across. Along the banks were Quaking Aspens and Willows and where these stopped were Artemisia, Wild Rose and grass. The traps were set mainly at the bottoms of small falls in the stream in the hope of getting Sorex palustris. Also set 2 rat traps in a rocky outcrop.

July 16. Caught one Sorex palustris navigator and 9 Bufo in the 45 traps along the stream. Caught one Calospermophilus lateralis in the 2 rat traps set in the rocks. Left the traps in the stream during the day and set 5 more traps.

Visited the traps in the stream at noon and had caught 2 Bufo.

Left the 50 traps in the stream overnight. Also set 14 rat traps in a rock

July 16 Cont. slide above camp.

July 17 Caught one Microtus mordax and 6 Bufo / in the 50 traps in the stream. Caught two Neotoma cinerea in the rat traps set in the rock slide also 1 Peromyscus maniculatus

Broke camp 9 A.M. and the party drove over Wheeler Pass and camped at 12 M on the East Walker River in a Grove of Cottonwoods which form a strip on either side of the river On either side of this strip the valley floor is dry and rocky with the broader part to the west and rocky hills not far to the east of the river. This place is designated as: E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

In the evening set 20 gov.-sized mouse traps across an old alfalfa field on the E side of the river. Also made one set for Gophers near camp.

July 18 Caught mammals of the following species in the 20 mouse traps: 2 Peromyscus maniculatus, 1 Reithrodontomys m. megalotis. In the gopher traps caught one Thomomys bottae

About 8:30 A.M. drove SE to Morgans Ranch with J.S. Brode. Here I made 4 sets for gophers in an Alfalfa field

At 5:30 drove SE to Morgans Ranch again

July 18 (cont.) with J.S. Brode and we examined our traps. Returned to camp and set 42 gov.-sized mouse traps across sandy soil with some rocks and a rather sparse growth of Artemisia, Ephedra, Chrysothamnus and Sarcobatus Traps were 20-25 paces apart

July 19 Caught mammals of the following species: 3 Dipodomys merriami, 5 Perognathus l. panamintinus, 2 Peromyscus maniculatus and 1 Neotoma lepida.

E. Walker R., 5100 ft., Morgans Ranch, Mineral Co., Nev.

Caught two Thomomys battae in the 4 Gopher sets in an alfalfa field

July 20. E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

Broke camp about 8:45 A.M. and drove with the party via Mason Valley, Yerington, Wabuska, Fort Churchill, Fallon, Westgate, and Eastgate to a point on Campbell Creek, 6900 ft., Lander Co. Nev. which is on the E side of the Desatoya mts. Here we made an overnight camp and I set 50 gov.-sized mouse traps in the bottom of a small canyon in Artemisia and some salt-grass.

July 21. Caught 8 Peromyscus maniculatus in 50 traps in Artemisia

Broke camp about 7 A.M. and the party

July 21 (cont.) drove via Campbell Creek Ranch up Smiths Creek past the Fish Hatchery to a point on Smiths Creek, 7100 ft., Lander Co., Nev.

In the evening set 65 Gov.-sized mouse traps N from camp up a slope covered with Snow-brush, Artemisia and Chrysothamnus from 1-3 ft tall. The line followed up the slope to a hill about 400 ft. higher than camp which was mainly rock slides and large rock outcrops with a few Juniper trees, Snow-brush, Wild Rose and Artemisia. In one rock slide I found a hay pile of a Conie and here set one #0 steel trap; also set another in the front of crevice in the rock where there was Woodchuck sign. The mouse trap line swung around thru the rocks and then back down the slope. Here I picked up the skull of a Woodchuck - Marmota flaviventris.

July 22 Caught mammals of the following species: 24 Peromyscus maniculatus, 3 Perognathus parvus in 65 Gov. sized mouse traps, also 1 Ochotona princeps and 1 Sylvilagus nuttalli in two steel traps.

Set 50 Gov.-sized mouse traps when I went 1 mile below camp with E.R. Hall in the evening. About 15 of these were set

July 22 (Cont.) along the banks of the dry stream which was lined with Aspens and Willows with sparse grass beneath. The rest of the traps were set up a hillside in rocks or on dry gravelly soil with small, scattered bushes of Artemisia and a few Pinyons.

July 23 Went Conie hunting in a rock slide about ½ mi. above camp at sunrise with D. H. Johnson and E. R. Hall but I got no Conies.

Caught mammals of the following species in the 50 traps set at Smiths Creek, 6800 ft., Lander Co., Nev.: 21 Peromyscus maniculatus, 3 Perognathus parvus, 3 Microtus mordax, 1 Neotoma cinerea.

Broke camp about 11 O'clock and the party drove down Smiths Creek to a point on Smiths Creek, 5800 ft., Lander Co., Nev. where we camped. Camp was close by Smiths Creek which is dry but the banks are lined with Quaking aspen, Willows and tangles of wild rose. In the open spaces at the edge of the trees were sparse bunches of grass 3-4 ft. tall with salt grass and weeds between bunches. The Canyon here is quite broad where it opens out into Smiths Creek Valley and it slopes up gradually to low hills at the side. The slopes and the hills

July 23 (Cont.) are covered with Artemisia, Sarcobatus, Chrysothamnus and Atriplex.

Set 70 traps in a line running up the creek and then up the banks of an irrigation ditch which had grassy banks and was lined with Willows and Wild Rose bushes. Several traps were set in a marshy spot and then the line swung back running parallel to the creek about 50 ft. out in Artemisia, Chrysothamnus, Sarcobatus & Atriplex.

July 24 Caught mammals of the following species: 12 Peromyscus maniculatus, 3 Perognathus parvus 1), 2 Microtus mordax, 1 Reithrodontomys megalotis in 70 traps.

Drove up the Canyon in the P.M. with W.C. Russell and 1 mi. above camp at Smiths Creek Ranch we made six sets for Gophers. Then drove up canyon 2 mi. by road above Smiths Creek Ranch to a point on Smiths Creek, 6000 ft., Lander Co., Nev. Here set 40 Gov.-sized mouse traps down along the creek, which here has a little water in it, in grassy places in Willows, Quaking Aspen and Wild Rose.

In the evening at camp, which was in an old stone house, caught a Myotis.

Palmer 1934

July 25 Smiths Creek Ranch - In the Gopher traps set with W.C. Russell, caught 4 Thomomys quadratus.

Smiths Creek, 6000 ft., Lander Co., Nev. In 40 Gov.-sized mouse traps, caught mammals of the following species: 7 Peromyscus maniculatus and 1 Neotoma lepida

Smiths Creek, 5800 ft., Lander Co., Nev. In the evening set 32 Gov.-sized mouse traps with bacon bait along the edge of the stream in grass, willows, and Wild Rose and in a grassy bog in the hope of getting Sorex.

July 26 Caught 8 Peromyscus maniculatus in 32 traps set along the edge of a stream and in a grassy bog.

Broke camp about 8 A.M. and drove down Smiths Creek and across Smiths Creek Valley and a Dry Lake to Peterson Ranch where we turned up Peterson Creek which we followed up to a point on Peterson Creek, 7000 ft., Shoshone Mts., Lander Co., Nev. Camp was established in a clump of Quaking Aspens near a spring. The cañon here is quite broad with a small stream lined with Aspens and Willows. The flat and

July 26 (cont.) The slopes leading up to the sides of the canyon are covered with Artemisia 1 to 1½ ft. tall. The sides of the canyon have large rocky cliffs and rock-slides and are covered with Pinyon and Mountain Mahogany on the N side and Aspen and Mountain Mahogany on the south side. The higher ridges E of camp are covered with Pinus flexilis

Set 70 Gov.-sized mouse traps NW from camp across the flat in Artemisia and up a slope in Artemisia and Piñon to a rock-outcrop where 2 set 4 rat traps. The line then circled back thru Piñon and Artemisia to camp.

July 27. Caught mammals of the following species: 15 Peromyscus maniculatus, 2 Perognathus parvus, and 3 Eutamias minimus in 70 mouse traps. No results on the rat traps.

In the P.M. drove with Hall 1.7 mi. down canyon from camp to a point on Peterson Creek, 6500 ft., Shoshone Mts., Lander Co., Nev. Here set 9 rat traps and 34 Gov.-sized mouse traps up a steep, rocky canyon wall in Artemisia and Piñon.

July 28 Early in the A.M. went up the E fork of Peterson Creek with Hall, Johnson and

July 28 (cont.) Russell to a point on Peterson Creek, 7800 ft., Shoshone Mts., Lander Co., Nev. Here I shot one Ochotona princeps in a rock-slide. On the way back to camp found the skull of a ♂ Odocoileus hemionus and shot a House Wren. In the traps on Peterson Creek, 6500 ft., Shoshone Mts., Lander Co., Nev. caught mammals of the following species: 6 Peromyscus maniculatus, 1 Peromyscus crinitus, 1 Neotoma lepida, 1 Callospermophilus lateralis, 1 Eutamias minimus and 1 Eutamias quadrivittatus. In the evening shot 3 Myotis

July 29 Went down hunting early in the A.M. with Hall and Johnson on Peterson Creek, 7600 ft., Shoshone Mts., Lander Co., Nev. Here in a rock-slide shot one Ochotona princeps and 1 Eutamias quadrivittatus.

Broke camp about 10 A.M and drove via Peterson Ranch, Eastgate, Westgate, Fallon, Hagen, and Fernley to Wadsworth where we camped about ¼ mi. E of the town at a place designated as: Wadsworth, 4100 ft., Lyon Co., Nev.

In P.M. drove with W.C. Russell and D.H. Johnson to a point 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev. Here set 95 Gov. sized mouse traps across a flat of deep sandy soil with some small dunes in Russian Thistle,

July 29 (cont.) Sarcobatus and some other plants also up the side and along the top of a large sand dune which was largely bare. It rained about 2 hrs this night.

July 30. Caught mammals of the following species: 9 Dipodomys merriami, 3 Dipodomys ordii and 3 Microdipodops pallidus (?). Most of the D. merriami appeared to have been caught early in the evening before the rain while the D. ordii and Microdipodops apparently were caught after the rain which lasted from about 7:30 - 9:30.

Drove SE from camp in the P.M. with Russell and Johnson to the same place as July 29. Here set 25 Gov.-sized mouse traps. Then drove back toward camp and at a point 1/2 mi. SE Wadsworth, 4200 ft. Lyon Co., Nev. I set 45 more Gov.-sized mouse traps on sandy soil in Sarcobatus, Atriplex, Chenopodium, Ephedra and Artemisia.

July 31 1 mi. SE Wadsworth, 4200 ft. Lyon Co., Nev.

Caught mammals of the following species: 1 Dipodomys deserti, 1 Dipodomys ordii, 21 Dipodomys merriami, 1 Onychomys leucogaster, 7 Microdipodops pallidus (?)

Palmer
1934

July 31 (cont.) and 2 Perognathus P. panamintinus.
1/2 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught mammals of the following species: 13 Dipodomys merriami, 1 Dipodomys microps levipes, 1 Dysdonys torridus 2 Perognathus P. panamintinus in 45 traps.

" Drove with Hall, Russell and Johnson to a point 4 mi. W Hazen where I set 80 Gov.-sized mouse traps across dry rocky, adobe soil with low bushes of Ephedra, Atriplex and Sarcobatus.

Aug. 1 4 mi. W Hazen, 4250 ft., Lyon Co., Nev.
Caught mammals of the following species: 6 Dipodomys microps, 7 D. merriami, 5 Perognathus longimembris, and 1 Mus musculus in 80 traps.
Broke camp about 5:00 P.M. and started for Berkeley via Reno, Truckee, Auburn, Sacramento and Carquinez Bridge and arrived about 10 A.M. Aug. 2, 1934.

Palmer 1934

Callospermophilus lateralis

July 13 Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.
Caught one in 15 traps set in Microtus runways in the grass in a sort of boggy place in a narrow canyon west of camp.

July 16 Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co., Nev.
Caught one in 2 rat traps set in a pile of rubbish in a rock-outcrop.

July 28. Peterson Creek, 6500 ft., Shoshone Mts., Lander Co. Nev.
Caught 1 in 35 traps set on a steep rocky hillside in Piñon and Artemisia.

Palmer 1934

Dipodomys deserti

July 31 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught one in 45 traps set across a flat of deep, fine sand with some small low dunes. Plants associated were Sarcobatus, Atriplex, Chenopodium, and Russian Thistle.

Palmer 1934

Dipodomys leucogenys

June 28 2 mi. S W Pine Grove, 7250 ft. Mineral Co., Nevada.
Caught 2 in 40 traps. One was taken in an old road between Artemisia and Chrysothamnus. The other was taken in a sandy spot in Artemisia.

June 29. Caught 2 in 45 traps. One was taken on sandy soil with a sparse covering of Artemisia. This was fairly well up from the flat in the bottom of the canyon. The second was taken in Chrysothamnus and Artemisia in the flat in the bottom of the canyon. very near the dry creek bed. This one had wild gooseberry seeds and some grass seed in cheek pouches.

Palmer 1934

Dipodomys m. meriami

June 30 Mason Valley, 5 mi. N. Pine Grove, 5300 ft., Mineral Co., Nev.
Caught one in 39 traps set in Atriplex, Chrysothamnus and Sarcobatus on rather sandy flat. This was a male with testes enlarged.

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught 18 in 74 traps. Most of these were taken on level adobe flats with Chrysothamnus. A few were also taken on sandy soil in Sarcobatus, Atriplex, Chrysothamnus and Chenopodium.

July 9 8 mi. SE Schurz, 4100 ft., Mineral Co., Nev.
Caught one in 36 traps set in atriplex, Sarcobatus and Chenopodium on a sandy slope.

July 19 E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.
Caught 3 in 42 traps in a sandy wash with Artemisia, Chrysothamnus, Sarcobatus and Ephedra.

July 30 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev
Caught 9 in 95 traps set across a sandy flat and up a low sandy hill in Russian Thistle, Sarcobatus

Palmer 1934

Dipodomys merriami

July 31 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught 21 in 45 traps set across a flat of deep fine sand in Russian Thistle, Sarcobatus,

½ mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught 13 in 45 traps set across a sandy flat in Sarcobatus, Atriplex, Chenopodium and Ephedra.

Aug 1. 4 mi. W Hazen, 4250 ft., Lyon Co., Nev.
Caught 7 in 80 traps set across rather level country in Artemisia, Atriplex, Sarcobatus and Ephedra.

Palmer 1934

Dipodomys microps leviper

June 30. Mason Valley, 12 mi. E Wellington, 5000 ft., Lyon Co., Nev.

Caught 7 in 46 traps set in Atriplex, Chrysothamnus and Sarcobatus. One ♀ with two 10 m.m. embryos. It appeared that this species is more common in the sandier parts of the mesa where the traps were set.

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

Caught 7 in 74 traps set on sandy soil in Atriplex, Sarcobatus, Chrysothamnus and Chenopodium.

July 31 1/2 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.

Caught one in 45 traps set across a sandy flat in Sarcobatus, Chenopodium and Atriplex

Aug 1. 4 mi. W Hazen, 4250 ft., Lyon Co., Nev.

Caught 6 in 80 traps set on level ground which varied from hard baked adobe to coarse gravel. However, they seemed to prefer the more sandy parts.

Palmer 1934

Dipodomys ordii

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught two in 74 traps set mainly on sandy soil with Atriplex, Sarcobatus, Chrysothamnus and Chenopodium.

July 9. 8 mi SE Schurz, 4100 ft., Mineral Co., Nev.
Caught one in 36 traps set on sandy soil with Atriplex, Sarcobatus and Chenopodium

July 30 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught 3 in 95 traps set across a sandy flat and up a low sandy hill in Russian Thistle, Sarcobatus

July 31 Caught one in 45 traps set across a sandy flat with some low dunes in Russian Thistle, Sarcobatus, Atriplex and Chenopodium.

Palmer 1934

Eutamias minimus

June 29 2 mi. SW Pine Grove, 7250 ft., Mineral Co., Nev.
Caught one in 45 Traps. Taken in Artemisia and Chrysothamnus Commonly seen everywhere in this region.

July 12 Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.
Caught one very small one in 75 traps in Artemisia across a sandy hill

July 13 Caught one in 45 traps in same place as July 12. This one was a ♀ apparently nursing young and still retained the winter pelage.

July 27 Peterson Creek, 7000 ft., Shoshone Mts. Lander Co., Nev.
Caught 3 in 70 Traps set in the broad level canyon bottom in Artemisia 1½-3 ft. tall.

July 28. Peterson Creek, 6500 ft. Shoshone Mts. Lander Co., Nev.
Caught 1 in 34 traps set up a steep rocky hillside in very ~~pale~~ Artemisia and Piñons.

Palmer
1934

Eutamias quadrivittatus

July 29. Peterson Creek, 7600 ft. Shoshone Mts. Lander Co. Nev.
Shot one in a rock-slide while
hunting Conies. This one came out
as soon as the sun hit the rock-slide.
It first sat on a rock and washed
itself with its tongue. By squeaking
I brought it up to within 3 ft of
me where it stood behind a small rock
with its fore-feet on it and switched
its tail rapidly back and forth. A
movement scared it away far enough
to shoot it.

Palmer 1934

Marmota flaviventris

July 22 Smiths Creek, 7500 ft., Lander Co., Nev.
Picked up a skull in a rock slide
at the base of some rocky cliffs
about 20 ft. high.

Palmer 1934

Microdipodops pallidus

July 8. 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught 2 in 74 traps set on sandy soil in Atriplex, Sarcobatus, Chrysothamnus and Chenopodium

July 9 8 mi. SE Schurz, 4100 ft., Mineral Co., Nev.
Caught 7 in 36 traps. Practically all were taken on fine sand in Atriplex, Sarcobatus and Chenopodium

July 30 1 mi. SE Wadsworth, 4200 ft. Lyon Co., Nev.
Caught 2 in 95 traps set across deep, fine sandy soil with some small dunes in Russian Thistle, Sarcobatus, Chenopodium and Atriplex. These specimens do not appear to be typical pallidus. This night it rained.

July 31 Caught 7 in 45 traps set in the same place as July 30.

Palmer 1934

Microtus mordax

July 17 Cottonwood Creek, 7400 ft. Mt. Grant, Mineral Co., Nev.
Caught one in #50 traps set in the stream. This one was taken in a spot where there were grassy banks with Artemisia back of them.

July 23 Smiths Creek, 6800 ft. Lander Co., Nev.
Caught 3 in 50 traps. These were caught in a small system of well worn runways in grass on the banks of a dry stream which was lined with Quaking Aspen and Willow.

July 24 Smiths Creek, 5800 ft. Lander Co., Nev.
Caught two in 70 traps. These were taken in a boggy spot but there were no indications of runway systems.

Palmer 1934

Microtus montanus

July 13 Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co. Nev.
Caught one very small one in a system of runways in grass beside a small stream. While taking this one from the trap, saw two more running in the grass.

July 14 Caught 3 in 15 traps the same place as July 13. Also caught 10 in 50 traps in a boggy area where the runways ~~were~~ often had the bottom covered with water or very soft mud. In some places, cut grass was found in the runways. There were a great many holes in the ground indicating a large colony in this spot.

Palmer 1934

Mus musculus

July 7. W. Walker R., 6 mi. S Yerington, 4500 ft, Lyon Co., Nev. Caught one in 4 traps set for Microtus in runways in grass 1-2 ft. tall along the edge of an irrigation canal.

Aug 1. 4 mi. W Hazen, 4250 ft., Lyon Co., Nev. Caught 1 in 80 traps set across a fairly level area covered with Ephedra, Sarcobatus, Atriplex and Chrysothamnus. This place was at least ½ mile from any human habitation or cultivated fields.

Palmer 1934

Myotis sp.

July 27. Smiths Creek, 5800 ft. Lander Co., Nev.
Caught one as it was flying about the kitchen of an old stone and adobe house in which camp was located. It appeared to be blinded by the gasoline lantern and flew aimlessly about. finally alighting and hanging up on the wall.

July 28. Peterson Creek, 7000 ft., Lander Co., Nev.
In the evening shot 3 as they were flying low (3-8 ft. above the ground) around the spring and aspen trees

Palmer 1934

Neotoma cinerea

July 17 Cottonwood Creek, 7400 ft., Mt. Grant Mineral Co., Nev.
Caught two in traps set in a rock-slide of good sized boulders. Most of the feces indicated that the rats lived mainly under the larger boulders and preferred the upper and center parts of the rock-slide to the lower part and outer edges.

July 23 Smiths Creek, 6800 ft., Lander Co., Nev.
Caught one in 50 traps. This one was taken in a rock outcrop on a west facing hillside in the Piñons.

Palmer 1934

Neotoma lepida

July 19. E. Walker R., 5050 ft., 2 mi. NW Morgan Ranch, Mineral Co. Nev.
Caught one in 42 traps. This one was taken by some large boulders in a dry wash with Artemisia and Chrysothamnus.

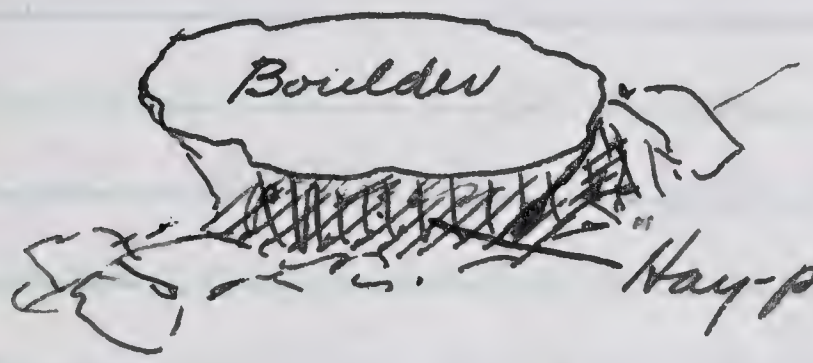
July 25 Smith's Creek, 6000 ft., Lander Co., Nev.
Caught one young one in 40 traps which were set along a small stream at grassy places in Wild Rose and Quaking Aspen.

July 28. Peterson Creek, 6500 ft. Shoshone Mts. Lander Co., Nev.
Caught one in 9 rat + 34 mouse traps which were set up a steep rocky hillside in a sparse growth of Artemisia and Piñon.

Palmer 1934

Ochotona princeps.

July 22 Smiths Creek, 7500 ft., Lander Co., Nev.
Caught one in #0 steel trap set in a rock slide. Evidence of the conies presence was found in a "hay-pile" of cut pieces of Artemisia and Prickly Phlox about 4-8 inches long. These were packed in under the overhanging edges of the largest boulder in the rock slide which was about 5 ft across and 2 ft. high. The trap was set under part of the overhanging edge which did not have "hay" packed in.



July 28 Peterson Creek, 7800 ft. Shoshone Mts., Lander Co., Nev.
Shot one out of 3 seen in a rock-slide where I watched from 5:00 to 8:00 A.M. These seen did not make much noise but some could be heard giving the characteristic call in nearly every rock-slide

July 29. Peterson Creek, 7600 ft. Shoshone Mts., Lander Co., Nev.
Shot one, the only one seen, in a rock-slide before sunrise.

Palmer 1934

Odocoileus Leniomus

July 28 Peterson Creek, 7000 ft., Shoshone Mts., Lander Co. Nev.
Picked the skull of a buck that had been lassoed around the antlers. The rope had become entangled slightly in a small bush and the deer had then walked around a tree, effectively snubbing it. Evidence that the deer had stayed alive some time, was found in the wearing of the 5/8" cotton rope nearly thru where it was snubbed. Also, the rope had cut clear thru the bark of the aspen to the wood.

We later learned that an Indian had wounded a deer in the next canyon the year before. He ran out of ammunition but managed to get a rope on the deer's horns. He then tied it and went to get help to bring it out but it broke away while he was gone. This deer is probably the same one -

Palmer 1934

Onachomys leucogaster

July 31. 1 mi. SE Wadsworth, 4200 ft., Lyon Co., Nev.
Caught one adult ♀ in 45 traps set across a sandy flat in Russian Thistle, Sarcobatus, Atriplex and Chenopodium The ♀ was apparently nursing young from the appearance of the mammary glands.

Palmer 1934

Onychomys torridus

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught two in 74 traps set on sandy level soil with Chrysothamnus, Sarcobatus, Atriplex and Chenopodium
The two caught were different color phases: one was grayish and the other reddish brown.

July 31. 1/2 mi. SE Wadsworth, 4200 ft. Lyon Co., Nev.
Caught 1 in 45 traps. The trap was set by the entrance to a small burrow about 1 1/2" in diameter in the bank of a dry wash. The surrounding area was fairly closely covered with Sarcobatus, Atriplex and Chenopodium.

Palmer 1934

Perognathus longimembris paramintinus

June 30. Mason Valley, 12 mi. E Wellington, 5000 ft., Lyon Co., Nev.
Caught 13 in 46 traps set in Atriplex, Sarcobatus and Chrysothamnus on a moderately sloping mesa.
Mason Valley, 5 mi. N Pine Grove, 5300 ft., Mineral Co., Nev.
Caught 16 in 39 traps set in Atriplex, Sarcobatus and Chrysothamnus.

July 8. 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught 5 in 74 Gov.-sized mouse traps set on gravelly or coarse sandy soil with fairly sparse growth of Atriplex Sarcobatus, Chrysothamnus and Chenopodium.

July 9. 8 mi. SE Schurz, 4100 ft., Mineral Co., Nev.
Caught 4 in 36 Gov.-sized mouse traps set on moderately sloping ground that varied in texture from fine sand to quite rocky soil.

July 19 E. Walker R., 5050 ft., 2 mi. NW Morgana Ranch, Mineral Co., Nev.
Caught 5 in 42 traps set across rocky ground in Artemisia, Ephedra, Sarcobatus, and Chrysothamnus. from 10" to 18" high.

~~July 31~~

Palmer 1934

Perognathus longimembris

July 31 ½ mi. SE Wadsworth, 4200 ft. Lyon Co. Nev.
Caught 2 in 45 traps set across sandy soil in Sarcobatus, Atriplex, Ephedra and Chenopodium.

July 31 1 mi. SE Wadsworth 4200 ft. Lyon Co., Nev.
Caught 2 in 45 traps set across a deep, fine sandy soil in Russian Thistle, Sarcobatus, Atriplex, Ephedra and some other plants.

Aug 1. 4 mi. W Hazen, 4250 Lyon Co., Nev.
Caught 5 in 80 traps set across rocky to sandy soil in Atriplex and Ephedra

Palmer 1934

Perognathus parvus

June 29 2 mi. SW Pine Grove, 7250 ft., Mineral Co., Nev.
Caught three in 45 traps. These were taken on the rather level floor of the canyon in openings between Artemisia and Chrysothamnus All had wild gooseberry seeds in the cheek pouches and one had some bits of green grass leaves.

July 12 Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.
Caught 2 in 75 traps set in Artemisia across the sandy top of a low hill. Both were caught where the Artemisia was smaller and the plants farther apart.

July 13 Caught 2 in 45 traps set in Artemisia across the sandy top of a low hill. One had cheek pouches full of seed pods. There were 455 pods of some Cruciferous plant which were about ½ inch long and 1/16 inch in diameter and 20 achenes of some species of Eriogonum.

July 22 Smiths Creek, 7500 ft., Lander Co., Nev.
Caught 3 in 65 traps. These were caught on a slope well up toward the top of a hill in Artemisia and Chrysothamnus 10" to 15" high

Palmer 1934

Perognathus parvus

July 23 Smiths Creek, 6800 ft., Lander Co., Nev.
Caught 3 in 50 traps set on a west facing dry hillside with Artemisia 8"–18" high.

July 24. Smiths Creek, 5800 ft. Lander Co., Nev.
Caught 3 in 70 traps. One was taken under the overhanging bank of an irrigation ditch in Willows. Another was taken in a dry hard baked adobe flat. A third was taken on dry gravelly ground in Artemisia, Chrysothamnus, Atriplex and Sarcobatus.

July 27. Peterson Creek, 7000 ft. Lander Co., Nev.
Caught 2 in 70 traps set across the flat at the bottom of the canyon in Artemisia ~~Cattails~~

Palmer 1934

Peromyscus crinitus

July 28 Peterson Creek, 6500 ft. Shoshone Mts., Lander Co., Nev.

Caught one in 34 mouse & 9 rat traps set up a steep rocky hillside. This one was taken in a rat trap set near a Neotoma nest in a rock-outcrop.

Palmer
1934.

Peromyscus maniculatus

June 28 2 mi. S W Pine Grove, 7250 ft., Mineral Co., Nevada.
Caught 10 in 40 traps. All (with 2 exceptions) were taken on rather sandy soil with moderately thick covering of Artemisia and Chrysothamnus. Two were taken in rat traps in an old cabin. None were taken on a rocky ridge among Piñons.

June 29 Caught 10 in 45 traps. All were taken in gently sloping or nearly level ground with Artemisia and Chrysothamnus

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught one in 74 traps set on sandy, level ground with Chrysothamnus, Sarcobatus, Atriplex and Chenopodium

July 12 Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.
Caught 24 in 75 traps set in Artemisia 1-2½ ft. high on sandy soil. Did not appear to be as common in the more open spots in the brushy cover.

July 13 Caught 10 in 45 traps set across a low sandy hill with Artemisia and some Mountain Mahogany. Caught 2 in rat traps set in outcrops of large granite

Peromyscus maniculatus

July 13 (Cont.) blocks.

Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co., Nev.

July 16 Caught one in 45 traps set along a small stream lined with Willows, Quaking Aspens, grass and Artemisia.

July 17 Caught one in 13 rat traps set in a rock slide.

July 18. E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

Caught 2 in 20 traps set across and old alfalfa field which had grown up to Russian Thistle.

July 19 Caught 2 in 42 traps set up a sandy or gravelly slope in Artemisia, Ephedra, Chrysothamnus and Sarcobatus.

July 21 Campbell Creek, 6900 ft., Lander Co., Nev.

Caught 8 in 50 traps set in Artemisia in the bottom of a canyon.

July 22 Smiths Creek, 7100 ft., Lander Co., Nev.

Caught 24 in 65 traps set up a slope from 7100 to 7500 ft. in Artemisia, Chrysothamnus and Snow brush from 1 to 3 ft. tall. A few were caught in the rocks.

July 23 Smiths Creek, 6800 ft., Lander Co., Nev.

Caught 21 in 50 traps along a stream lined with Quaking Aspens and Willows

Peromyscus maniculatus

July 23 (cont.) and on a dry hillside in Artemisia and Piñona.

July 24 Smiths Creek, 5800 ft., Lander Co., Nev.
Caught 12 in 70 traps set along the banks of an irrigation ditch in Willows, Wild Rose and Quaking Aspen, in a boggy place, in a dry adobe flat, and on gravelly ground in Artemisia, Atriplex, Chrysothamnus and Sarcobatus.

July 25 Smiths Creek, 6000 ft., Lander Co., Nev.
Caught 7 in 40 traps set along a small stream in grassy places in Wild Rose, Willow and Aspen.

July 26 Smiths Creek, 5800 ft., Lander Co., Nev.
Caught 8 in 32 traps baited with bacon and set along the banks of an irrigation ditch and in a bog for shrews.

July 27 Peterson Creek, 7000 ft., Shoshone Mts., Lander Co., Nev.
Caught 12 in 70 traps set across a flat in Artemisia and up a slope in Piñon and Artemisia to some rock outcrops

July 28 Peterson Creek, 6500 ft., Shoshone Mts., Lander Co., Nev.
Caught 6 in 34 traps set up a steep rocky hillside in Artemisia and Piñon.

Palmer 1934

Peromyscus truei

June 28 2 mi. SW Pine Grove, 7250 ft. Mineral Co., Nevada

Caught one in trap set on rocky ridge among Piñons. None in other 39 traps set lower down in less rocky places. It appears that this species is found only in rock outcrops on the ridges.

Palmer 1934

Pipistrellis hesperus

July 7 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Shot one a few minutes after sun-
down as it was flying about, catch-
ing insects around the Cottonwood
trees. Appeared to stay nearly always near
the periphery of the foliage of trees
but sometimes flew out in the open

Palmer 1934

Reithrodontomys m. megalotis

July 7 W. Walker R., 6 mi. S Yerington, 4500 ft., Lyon Co., Nev.

Caught one in 4 traps set in Microtus runways in tall grass in the edge of an irrigation ditch.

July 8 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.

Caught 3 in 74 traps set on sandy soil in Chrysothamnus, Atriplex, Sarcobatus, and Chenopodium.

July 18. E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

Caught one in 20 traps set across an old alfalfa field that had grown up to Russian Thistle.

July 24 Smith's Creek, 5800 ft. Lander Co., Nev.

Caught one in 70 traps. This one was taken in a boggy spot which was full of fairly tall grass and was surrounded by willows.

Palmer 1934

Sorex palustris

July 16 Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co., Nev.
Caught one in 45 traps set along the stream ~~[illegible]~~ lined with Quaking Aspens, Willows, Wild Rose, Artemisia, Wild Iris and grass. The stream is about 1-2½ ft. in width with rocky bottom and drops fairly rapidly so there is a series of small waterfalls. Traps were set below the falls usually on a small ledge or in a few cases were set in a gap, between two rocks, thru which the stream flowed.

Palmer 1934

Sylvilagus nuttallii

July 22 Smiths Creek, 7500 ft., Lander Co., Nev.
Caught 1 in a #0 steel trap which was
set in a crevice in a rocky outcrop
for woodchuck. There were a few
Junipers nearby and a sparse growth
of Artemisia and Snow Brush

Palmer 1934

Taxidia taxus

July 11 — 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Shot one young ♀ near camp as it was climbing up the rather steep bank from the stream. Appeared to be quite slow and clumsy.

Palmer 1934

Thomomys bottae

July 6. 12 mi. S Yerington, 4600 ft., W. Walker R., Lyon Co., Nev.
Caught one in 3 sets of gopher traps set in a runway dug out below a large mound of dirt about 18" across and 8" high. This working was in black, rather fine soil and such soil seemed to be preferred to rocky soil nearby.

July 11 3 mi. S Schurz, 4100 ft., Mineral Co., Nev.
Caught 2 in 6 sets which were made along the stream where mounds were usually found between the very moist stream banks and the dry sand of the surrounding area.

July 18. E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.
Caught one in a single set in an open field near camp. Many old mounds here but very few recent ones.

July 19. E. Walker R., 5100 ft., Morgans Ranch, Mineral Co., Nev.
Caught two in 4 sets in an alfalfa field where the mounds were neither large nor abundant.

Palmer 1934

Thomomys quadratus

June 29 2 mi. SW Pine Grove, 7250 ft., Mineral Co., Nev.

Shot one ♀ as she was pushing dirt from the mouth of a burrow. Many mounds in grassy flat around camp. Black, rather fine soil, moist from seepage of spring seemed to be preferred to surrounding dry gravelly soil.

July 25. Smith Creek Ranch., 5850 ft. Lander Co., Nev.

With W. C. Russell caught 4 out of 6 sets made in a pasture. Soil here in some places was rocky and at other places fine and fairly loose.

Section 2

F. J. Palmer

San Francisco Bay region

Tulare, Los Angeles & San Bernardino Counties

Feb. - Sept. 1934

F. J. Palmer

Field Notes 1934.

Feb. - Sept.

San Francisco Bay region
Tulare, Los Angeles and San Bernardino Co's.

General Account
Catalog of Specimens #16-268
Species accounts

Palmer
1937.

General Account.

Feb. 4. Hillside south of Strawberry Pond, ¼ mile East of Stadium, Berkeley, Alameda Co., California.

Set three mouse traps and one rat trap: Two mouse traps along the road in blackberry, brake ferns, poison oak, corylus and Wild Currant thicket. Both were out baited and were about 10 ft. apart. Here took one Peromyscus c. californicus ♂ (FGP-5.) and one P. truei gilberti ♂ (FGP-6)

Rat trap was set by wood rat nest near stream by bridge opposite upper end of Strawberry Pond. Trap was out baited and was sprung.

The third mouse-trap was set about 3 ft. above level of the stream opposite the Poultry Station. Cover was wild blackberry, Equisetum and brake-ferns under a small willow. Took Peromyscus maniculatus gambeli ♂ (FGP 7) in this trap.

Palmer
1934

General Account.

Feb. 24. Dwight Way Hill, 650 ft, Berkeley, Alameda Co., California.

Set four mouse traps in Microtus runways in Puccinellia and Hordeum grasses around base of Bacharis bush. West facing slope. Have took one immature ♀ Microtus c. californicus (No skin) and one ♀ Reithrodontomys megalotis longicaudus F.G.P. 10.
B&L caught in runway worn bare by much use. Traps in more grassy bottomed runway took nothing.

Hamilton Gulch, 650 ft, Berkeley, Alameda Co., California

Set eight mouse traps in brush along the road. West and north facing slopes. Some in hard chaparral wherd. Took one ♂ Peromyscus truei gilberti and one immature Peromyscus probably P. c. californicus. In soft chaparral took one ♀ (#9) of Peromyscus c. californicus and two Peromyscus truei gilberti — one ♂ (#8) and one ♀.
All traps oat + raisen bait.
Also set two rat traps by woodrat nest. Oat bait taken but did not catch anything

Palmer
1934

General Account

Mar. 4 500 ft., North side of Dwight Way Hill, Berkeley, Alameda Co., Calif. Set 12 mouse traps. Ten in Microtus runways in puccinellia grass and chlorogallum on a Northwest facing slope. In these took one ♀ Microtus on oat bait. Two traps with meat bait in hope of getting Sorex but no result. One other trap was set in a clump of Baccharis, Poison oak and nettles just below the Microtus runs. Here took one ♂ Reithrodontomys megalotis longicaudus which had the skull crushed so was not put up. One other trap was set in the mouth of a burrow about 1" in diameter with oat bait. No result.

Palmer
1934

General Account.

Mar 8 1/4 mi. N.E. of Botanical Garden, 800 ft., Strawberry Canyon, Berkeley Alameda Co., Calif.

Started to set traps in Microtus runways in grassy hillside but decided it was better farther up the canyon after setting 3 traps. When I went to pick up these three, found that the first one set had in it a ♀ Microtus (#12) altho the trap had been set only a few minutes.

Oat bait.

Palmer
1934

General Account.

Mar 9. 900 ft. North Fork of Strawberry Canyon, Berkeley, Alameda Co. Calif.

Set 12 mouse and 2 rat traps.
Rat traps were set by woodrat nest under a willow in the bottom of the canyon. Oat bait. No results.

Two mouse traps were set in a clump of blackberry. Both sprung and bait eaten.

Two mouse traps with bacon bait were set in Microtus runs in grass and sedges. Took one ♂ Sorex ornatus californicus #13

Four traps were set in Microtus runways with oat bait. These runways were mostly in dead grass. Took one ♂ Microtus and one ♂ Peromyscus maniculatus gambeli. Both had crushed skulls so were not put up.

Four traps were set on south facing dry hillside covered with old-man sage. These were set on open gravelly ground beneath the sage and with oat bait. Took one ♂ Perognathus c. californicus #14.

F. Dale gave me one Neithrodontomys m. longicaudus ♀ #15 from his traps in the same general area.

Palmer 1934

General Account.

Mar. 14 600 ft, North side of Claremont Canyon, Berkeley, Alameda Co, Calif.

Set 10 mouse traps on south facing hillside. 4 on grassy part and 6 in a gully where there was lots of Poison Oak, Bacharis and Artemesia. Traps on hillside were not sprung but took two Peromyscus truei gilberti in the brushy gulch. One ♂ and one ♀ (#17). Set 2 rat traps in mouths of old squirrel holes. In one of these took ♂ Perognathus c. californicus (#16). The hole was about 3" in diameter and fresh dirt in front of the entrance indicated recent work altho the mouth of the burrow was choked with weeds.

Palmer
1934

General Account

Mar. 16 | 650 ft., North side of Claremont Canyon, Berkeley, Alameda Co., Calif.

- Trapped higher up the hillside than on Mar. 14. but in the same general area.

Set 15 mouse traps. Four in Microtus runways & two took nothing. Two on large flat rocks in one of which I took a ♂ Reithrodontomys megalotis longicaudus. Three were set under Artemesia on open, gravelly, dry ground. In one of these took a ♂ Perognathus c. californicus (#18). Six were set in the mouths of small burrows ranging from 1"-2½" in diameter. In one under the edge of a large rock took a ♂ Perognathus c. californicus (#20) In another in Artemesia on sparsely covered part of hillside took ♀ Perognathus c. californicus. (#19). At the mouth of a small burrow about 1¼" diameter took one ♂ Reithrodontomys megalotis longicaudus. He was alive, only caught by the tail, so I took him home but he only lived for 4 days.

Palmer
1937

General Account

Mar. 25 900 ft., ¼ mi. E. N.E. of Botanical Garden, Berkeley, Alameda Co., Calif.

Set 14 mouse traps on the south facing slope of the middle fork of Strawberry Canyon. Four were set on rather dry hillside under Artemesia. Here took one Peromyscus maniculatus gambeli ♀ and one P. truei gilberti ♂. Farther up the slope set 7 traps in Microtus runways in grass and Juncus. Here took two Microtus C. californicus ♂ + ♀, three Reithrodontomys megalotis longicaudus all ♂ (one of which was caught by the tail and broke some skin) two Peromyscus maniculatus gambeli. Three traps were set under various bushes. Two were on bare ground under Bush Lupine. Here took one Perognathus C. californicus ♂. One was set in blackberry tangle over a dead willow with no result.

Same night also set four traps with bacon bait along Strawberry Creek just above the Poultry Station. Took one Peromyscus maniculatus gambeli ♀

Palmer
1934.

General Account.

Mar. 30. 2 mi. East of Archibald Ave. on 4th St., Guasti, San Bernardino Co., Calif. 4-34

The area trapped was a dry wash about 50 ft across with high sandy banks. In the bottom of the wash was some artemesia; under this took one Dipodomys a. agilis and one Peromyscus maniculatus gambeli. In the lower part of the banks were several old burrows with a diameter of about 2½ inches. Set 5 traps in these mouths + took two Peromyscus maniculatus gambeli. Set 4 traps under Mule-fat (Baccharis) on the top of the sandy banks of the wash and took two Peromyscus maniculatus gambeli. Set one trap in a patch of Rumex and took one P. maniculatus gambeli. Two traps were set in under tumbleweeds on the top of sandy banks. Here took one immature Dipodomys agilis agilis.

16 traps, set. Oat bait

Palmer
1934

General Account

Mar. 31. 2 mi. East & Archibald Ave on 4th St.,
Guasti, San Bernardino Co., Calif. 4-
34

Set 9 traps all on the sandy low hills at the side of the wash. 4 set in burrow mouths Took one Mus musculus and two Peromyscus maniculatus gambeli. Three were set in open sandy spots. In Two of these took P. eromyscus maniculatus gambeli. Set two traps under Tumbleweeds on the sand. In one took a ♀ Dipodomys agilis agilis #30 and in the other a Peromyscus maniculatus gambeli.

Palmer
1934

Itinerary

4 mi. NNE Claremont, 2000 ft., Los Angeles Co., Calif.

June 17 This place is just west of the mouth of San Antonio Canyon and is 1 mi. SW mouth of Evey Canyon, just at the base of the foothills. Set 7 traps up a small hillside and onto a level bench in Artemisia sp. and Salvia apiana.

June 18 Caught one Dipodomys a. agilis on the flat and one Peromyscus b. boylei? on the hillside -

San Antonio Canyon, 4000 ft. San Bernardino Co., Calif.

June 19 Drove N from Ontario on Euclid Ave. then W on 24th St to mouth of San Antonio Canyon and ups the canyon to Hog Back, there turned right up the road to Barrett Canyon. Barrett Canyon is a branch of San Antonio Canyon which runs east into San Bernardino Co. Drove about ½ mi. up the canyon and camped at the cabin of E. W. Fischer. The canyon here is rather narrow with a small stream running down it. The canyon bottom is filled with large alder trees, California Laurel, and Broad leafed maples. The sides of the canyon are covered with a thick

Palmer
1934

Itinerary

June 19 cont. growth of scrub oak, ~~and~~ Cañon Oak and Big Cone Spruce. In the area around the cabin set 8 mouse traps and one rat trap.

June 20 Caught three mice in the traps. These are all Peromyscus of the same species and may be truei but I can't be sure — probably Peromyscus maniculatus

June 25 to Aug. 3. Notes from June 25 - Aug. 3 in Museum of Vertebrate Zoology, Univ. of Calif at Berkeley —

7 mi. N. Springville, 2100 ft., Tulare Co., Calif.

Aug. 8 At the ranch of M. F. Palmer. This is an area of dry grassy flats and low hills with a sprinkling of Blue and Live Oaks, close to a branch of the Tule River which is lined with Sycamores, Ash and Buttonwillows. A. Palmer
In the open grassy flats I shot one ♂ Sylvilagus a. valicola. In the evening shot one Eptesicus fuscus and one Pipistrellus hesperus? down by the river. It was noted that both Pipistrellus, Eptesicus and Myotis? were all flying at the same time.

Palmer
1934

Itinerary

1 mi. NE Upland, 1350 ft., San Bernardino Co., Calif. 4-25-34

Aug. 11 Drove from Ontario N to Upland and then NE 1 mi. to Red Hill. This is just east of a dry wash area which was trapped. The soil varied from fine sand to rocky boulders. Plant association was Lower Sonoran. with White Sage, Artemisia, Islay ± (Prunus ilicifolia), dry grass and Sycamore trees. Here set 45 traps in a line at 15-20 ft. intervals

Aug. 12 Caught 4 Dipodomys agilis and 3 Peromyscus ~~eremicus~~ ~~fraterculus~~ ~~b. rowleyi~~. in the 45 traps.

In P.M. drove 5 mi. E Ontario on 4th St. to a large sand dune. The dune is made up of fine sand and is about ½ mi. long and 50 ft wide. Plants which grow rather thickly on it are Sunflower, Russian Thistle and Squaw-Bush (Rhus trilobata). Here set 70 traps in a line at intervals of 10-20 ft.

Aug. 13 ~~2 mi. E Ontario, 1050 ft. San Bernardino Co., Calif.~~ Caught mammals of the following species: 3 Dipodomys m. parvus, 3 Dipodomys Sp.?, 4 Dipodomys agilis and 11 Peromyscus maniculatus.

In the evening drove south from Ontario about 7 mi. to Prado, in Riverside Co. where

Palmer
1937
Aug. 13
cont.

Itinerary

the Santa Ana River flows into Santa Ana Cañon. The river here is quite broad and shallow and is rather slow running. The banks are lined with Cottonwoods, Willows, Cattails and grass. Set 50 gov. sized mouse traps in grass and cattails in marshy spots along the river. Also set 40 traps in dry sandy washes at the base of the hills.

Aug. 14 Caught 3 Reithrodontomys in the 50 traps along the river and 1 Dipodomys a. agilis in the 40 traps at the base of the hills. These were put up by S. Bailey, B. Palmer and A. R. Mahrdin.

1000 ft. 1/4 mi. ENE Botanical Garden, Berkeley, Alameda Co., Calif. Sept. 28.

Went up Strawberry Canyon this evening with D. H. Johnson. Went on up past Botanical Garden in the canyon shown on some maps as Snowberry Creek. Set traps on the N side of the canyon. The traps (40 gov-sized mouse traps) ran in a line up the hillside thru dry grass, Artemisia, bush lupine and Poison oak, and back down in a small gully filled with Bacharis.

Sept. 29

In the 40 traps caught: 3 Microtus c. californicus, 3 Peromyscus m. gambeli,

Palmer
1934

Itinerary -

1000 ft. ¼ mi. ENE Botanical Garden
Berkeley, Alameda Co., Calif.
Sept. 29 Continued
6. Leithrodontomys m. longicaudus
and 2 Perognathus c. californicus

Palmer
1934.

Catalog.

Hillside south of Strawberry Pool, 1/8 mile East of Stadium, Berkeley, Alameda Co., California - Feb. 4, 1934.

5. Peromyscus c. californicus ♂
225 - 115 - 27 - 22

6. Peromyscus truei gilberti ♂
179 - 91 - 24 - 18.

3 ft. above stream, opposite Poultry Station, Strawberry Canyon, Berkeley, Alameda Co., California - Feb. 4, 1934.

7. Peromyscus maniculatus gambeli ♂
154 - 75 - 20 - 14 - Testes large.

Hamilton Gulch, 650 ft, Berkeley, Alameda Co., California. Feb. 24, 1934

8 Peromyscus truei gilberti ♂
205 - 100 - 23 - 21

9. Peromyscus c. californicus ♀
245 - 133 - 27 - 25 - Two embryos 45 mm.

650 ft., Dwight Way Hill, Berkeley, Alameda Co., California. Feb. 27, 1934.

10. Reithrodontomys megalotis longicaudus ♀
137 - 62 - 12 - 10

Palmer
1934

Catalog

500 ft., North side of Dwight Way Hill, Berkeley, Alameda Co., Calif. Mar. 4, 1934

11. Microtus c. californicus. ♀
154 - 47 - 20 - 14, Six 10 mm. Embryos.

1/4 mi. N.E. of Botanical Garden, 800 ft, Strawberry Canyon, Berkeley, Alameda Co., Calif., Mar. 8, 1934

12. Microtus c. californicus ♀
168 - 52 - 22 - 17, Four 12 mm. Embryos.

900 ft., North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif. Mar. 9, 1934.

13 Sorex ornatus californicus ♂
95 - 35 - 13 - 5

14. Perognathus c. californicus ♂
194 - 95 - 25 - 10

15 Reithrodontomys megalotis longicaudus ♂
131 - 73 - 17 - 14.

Palmer
1937

Catalog

600 ft., North side of Claremont Canyon,
Berkeley, Alameda Co., Calif. Mar 14, 1934.

16. Perognathus c. californicus ♂
205 - 113 - 27 - 12

17 Peromyscus truei gilberti ♀
174 - 84 - 23 - 20

650 ft., North side of Claremont Canyon,
Berkeley, Alameda Co., Calif. Mar 16, 1934

18 Perognathus c. californicus ♂
192 - 105 - 26 - 11 Testes enlarged

19. Perognathus c. californicus ♀
186 - 104 - 24 - 11 - No embryos.

20 Perognathus c. californicus ♂
180 - 100 - 24 - 12 - Testes enlarged

900 ft., 1/4 mi E. N. E. of Botanical Garden
Berkeley, Alameda Co., Calif. Mar. 25, 1934

21 Reithrodontomys megalotis longicaudus ♂
135 - 71 - 17 - 14

22 Microtus c. californicus ♀
150 - 42 - 21 - 16. Five 10 mm. embryos

Palmer
1934.

Catalog.

900 ft., 1/4 mi E.N.E. of Botanical Garden,
Berkeley, Alameda Co., Calif. Mar 25, 1934

23 Perognathus c. californicus ♂
(166)-(80)-26-12

24 Peromyscus maniculatus gambeli ♀
155-67-20-16

25 Reithrodontomys megalotis longicaudus ♂
136-70-17-13

26 Peromyscus maniculatus gambeli ♂
157-72-21-17

1158 Columbia Ave., Ontario, San
Bernardino Co., Calif. Mar. 29, 1934

27 Thomomys bottae pallescens ♂
257-84-32-9

2 Mi. East of Archibald Ave on 4th St.,
Guasti, San Bernardino Co., Calif. Mar. 30, 1934

28 Dipodomys agilis agilis ♂ Immature?
242-145-42-14

29. Peromyscus maniculatus gambeli ♀
150-65-18-17.5 Five 5mm. embryos.

Palmer
1937.

Catalog

2 Mi. East of Archibald Ave. on 4th St.,
Guasti, San Bernardino Co., Calif. Mar. 31, 1937

30. Dipodomys agilis agilis ♀
275-168-42-14

4 mi. NNE Claremont, 2000 ft. Los Angeles Co. Calif
June 18, 1934

31 Dipodomys a. agilis ♂ -292-177-42-17
32 ♂ Peromyscus ~~b. rowleyi~~ eremicus fatuculus ? 186-97-20-19
San Antonio Canyon, 4000 ft. San Bernardino Co.
Calif.

June 20, 1934

33 ♂ Peromyscus b. rowleyi -195-110-21-19
34 ♀ " -186-97-21-19

Specimens from #35 to 244 (Inc.)
collected in Nevada and now
in University of California Museum
of Vertebrate Zoology—

Palmer 1934.

Catalog

1 mi. N Springville, 2100 ft. Tulare Co., Calif.
Aug. 8, 1934 coll. A.L. Palmer.

245 ♂ Sylvilagus a. vallicola - 380, 46, 90, 77
246 ♂ Eptesicus fuscus - 101, 42, 11, 16 Tr. 7
247 ♂ Pipistrellis hesperus - 72-27-7-10 Tr. 5

1 mi. NE Upland, 1350 ft., San Bernardino Co., Calif.
Aug. 12, 1934

248 ♂ Dipodomys a. agilis - 300-183-42-17
249 ♂ " " " - 295-183-45-17
250 ♂ " " " - 263-242-41.5-17
251 ♀ " " " 275-169-41-17
252 ♂ Peromyscus ~~t. rowleyi~~ eremicus fraterculus ? - 175-96-21-18
253 ♀ " " " - 173-97-20-18 (2 Embryos x 21 mm)
254 ♂ " " " - 182-100-20-17.5

5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.
Aug. 13, 1934

255 ♂ Dipodomys m. parvus - 214-126-36-12
256 ♀ " " " - 211-129-34-12
257 ♀ " " " - 220-130-36-12
258 ♀ " Sp.? 251-150-40-16
259 ♀ " " - 228-141-40-14
260 ♂ " " 216-134-39-14
261 ♂ " a. agilis - 277-166-43-16
262 ♀ " " " - 262-155-40-17 (3 embryos x 33 mm)

1000 ft., 1/4 mi. ENE Botanical Garden, Berkeley, Alameda Co., Calif.
Sept. 29, 1934

263 ♂ Perognathus c. californicus - 199-110-24-11
264 ♂ Microtus c. californicus 155-47-22-14

Palmer
1934

Catalog.

1000 ft., ¼ mi ENE Botanical Garden, Berkeley,
Alameda Co., Calif.

Sept. 29, 1934

265 ♀ Microtus c. californicus. 145-43-22-14

266 ♀ Reithrodontomys m. longicaudus. 132-63-16-13

Skull only 267 ♂ " " " -141-74-17-13.5

268 ♂ Peromyscus m. gambeli 157-66-20-17

Palmer
1934

Sorex ornatus

Mar. 9 900 ft., North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif.
Took 1 in two mousetraps baited with bacon and set in Microtus runways in green grass on a gently sloping hillside with west exposure. The specimen was a male with large testes.

Palmer
1934

Pipistrellus hesperus

7 mi. N Springville, 2100 ft. Tulare Co., Calif.
Shot one as it was flying low
over a large pool in the river
a little before 7 P.M. These bats would
fly rather low around the trees
now and then swinging down in
an arc to snatch some insect from
the surface of the water. That they
actually touched the water was shown
by the small ripples left on the
smooth surface of the pool.

Palmer
1934

Eptesicus fuscus

Aug 8. 7 mi. N Springville, 2100 ft. Tulare Co. Calif.
Shot one about 7 P.M. as it was
flying low over large pools in
the river. Many more probably of
this species were seen flying high
in the air up the river.

Palmer
1934.

Mar 29 Thomomys bottae fallescens

1158 Columbia Ave., Ontario, San Bernardino Co., Calif.

Collected by F. F. Palmer

Macabee gopher traps set in main runway of extensive system of branching underground tunnels in the garden at my home. Tunnels were 2½ inches in diameter, the main runway about 4½ inches diameter. Moundsofdirt thrown up from the underground workings were pushed out of the burrow mouths. A small round depression in the mound indicated the location of the burrow mouth.

Sign - plants standing suddenlydied When examined these were found to have the roots eaten away. Smaller plants were draggedd down thru a small hole into the burrow and partly eaten.

Palmer
1934

Perognathus c. californicus.

Mar. 9 — 900 ft., North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif.

Took one ♂ (#14) on oat baited trap. Trap set under Old Man Sage (Artemesia californica) on dry gravelly ground. Hillside rather steep slope with south exposure

Mar. 14. — 600 ft., North Side of Claremont Canyon, Berkeley, Alameda Co., Calif.

Took one ♂ (#16) in oat baited pit trap set in the entrance to an abandoned ground-squirrel burrow. The burrow was on a rather steep gravelly bit of hillside facing southwest. Surrounding vegetation was mainly Artemesia and Bacharis with grass. The mouth of the burrow had grown up to weeds but fresh dirt about the mouth indicated recent work.

Mar 16. — 650 ft., North Side of Claremont Canyon, Berkeley, Alameda Co., Calif.

Took one ♂ (#20) at the mouth of a burrow beneath the overhanging edge of a large boulder. The burrow was about 1½" by 2" and the entrance was filled with grass. In his cheek pouches were several seeds of some grass apparently Bromus. Testes enlarged.

Palmer 1934

Perognathus c. californicus

Mar 16 Cont'd. Took one ♀ (#19) in trap set in the mouth of a rather new looking burrow in open ground between clumps of Artemesia. The burrow was about 2" in diameter. Mouse contained no embryos. Oat bait.

Took one ♂ (#18) in a trap set on gravelly, open ground under Artemesia on west facing part of slope. Check pouches contained several bits of the oat bait indicating that the trap didn't go off immediately. Testes enlarged.

Mar 25 900 ft., 1/4 mi E.N.E. of Botanical Garden, Berkeley, Alameda Co., Calif

♂ 23 Taken in trap set on bare ground underneath a bush lupine. The torn and scattered pods of this plant indicated that some small animals had been feeding here but check pouches of this specimen were empty. Moderately sloping hillside with some grass and bushes. Hillside dotted with Artemesia, Poison Oak, and bush lupine.

The specimen had lost the tip end of his tail at some previous time and it was all healed up but with a lump at the end.

Palmer
1934

Perognathus c. californicus

Sept 29 1000 ft., 1/4 mi. E of E Botanical Garden, Berkeley, Alameda Co., Calif.

Caught 2 in 45 traps. One was taken at the mouth of an old Ground Squirrel burrow on a dry base hillside on which the grass had been grazed off. The other was taken in a bare open spot between clumps of Artemisia.

Palmer
1934

Dipodomys merriami parvus

Aug. 13 5 mi. E Ontario, 1050 ft. San Bernardino Co Calif
Caught 3 in 70 traps set on a dune of fine sand about ½ mi. long and 50 ft. wide. The dune was covered with a rather thick growth of Russian Thistle, Sunflowers and Squaw Bush (Rhus trilobata) with areas of open sand between. This is apparently the western-most record for this subspecies.

Palmer
1934

Dipodomys agilis agilis

Mar 30 2 mi. East of Archibald Ave. on 4th St, Guasti, San Bernardino Co., Calif.

#28

Took one immature male in trap set on the high sandy mounds by the side of a dry wash. Trap was set under a "tumbleweed" with out bait. Cover nearby was a sparse growth of Bacharus — Mule-fat.

Also took one adult male in trap set under artemisia in the sandy bottom of the wash. This one was partly eaten by some animal.

Mar. 31. 2 mi. East of Archibald Ave. on 4th St, Guasti, San Bernardino County, Calif.

Took one adult ♀ in a trap set on a low sandhill. The trap was placed between two large tumbleweeds. Apparently they feed on the seeds of these dry bushes.

June 18 4 mi. NNE Claremont, 2000 ft. Los Angeles Co., Calif.

Caught one in 8 mouse traps + 1 rat trap. This one was taken in the rat trap which was set on a rather level bench at the base of the foothills. The trap was set in a rather open spot covered with sparse grass between Artemisia and white sage (Salvia apiana)

Palmer
1934

Dipodomys a. agilis

Aug 12 1 mi. NE Upland, 1350 ft., San Bernardino Co., Calif.
Caught 4 in 45 mouse traps set at 15-20 ft intervals in a dry wash. All were taken on fine sandy ground. Plants here were Salvia apiana, Artemisia, Prunus illicifolia, Sycamore trees and dry grass and weeds.

Aug. 13 5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.
Caught 4 adults in 70 traps set on a sand dune of fine sand, about ½ mi. long by 50 ft. wide. Dune was covered with a growth of Russian Thistle, Sunflower, and Squaw Bush (Rhus trilobata) with small areas of bare sand between

Palmer 1934

Reithrodontomys megalotis longicaudus

Feb. 24 — 650 ft., Dwight Way Hill, Berkeley, Alameda Co., California

One ♀ taken in bait and raisen baited trap in Microtus runway on level top of hill. Runway in Puccinellia and Hordeum at base of Baccharis bush

Mar. 9 — 900 ft., North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif.

One male taken here by F. Dale in oat baited trap in Microtus runway given to me. F.G.P #15.

Mar 16 — 650 ft., North Side of Claremont Canyon, Berkeley, Alameda Co., Calif.

Took one ♂ in oat baited trap set on top a large flat boulder. The surrounding area was mainly grassy with a southwest exposure and gradual slope

Caught another ♂ by the tail in oat baited trap set near the mouth of a burrow with a diameter of about 1½". Took the mouse home and also it lost practically all its tail, it lived for four days. It ate oats, and drank water from an eye-dropper. However, lettuce was not eaten. At sometimes during the night would be very restless, especially near morning, but was quiet thru the day.

Palmer
1934

Reithrodontomys megalotis longicaudus

Mar. 25 900 ft., ¼ mi. E.N.E. of Botanical Garden, Berkeley, Alameda Co., Calif.

Took 3 ♂s in traps set in Microtus runways in grass and sedges. Hillside with gradual slope toward the south. Nearby were Artemisia, Poison Oak and Bush Lupine. Two of those caught are #21 and #25. The other one was caught at the base of the tail and was still alive. He was taken home and then given to E. I. Hooper. The feces left by the mouse in the box were about 3/16 - ¼" long and a little over 1/16" in diameter, tapering from near the middle to the pointed ends.

Sept. 29 1000 ft., ¼ mi. ENE Botanical Garden, Berkeley, Alameda Co., Calif.

Took 6 in 45 traps on a south facing hillside covered with dry grass between rather large clumps of Artemisia, Rhus ~~ledifolia~~ diversiloba, Bush Lupine and Baccharis. It appeared that most of these were caught in well worn runways probably belonging to Microtus

Palmer
1934

Peromyscus c. californicus.

Feb. 4 — Hillside south of Strawberry Pool, 1/8 mile East of Stadium, Berkeley, Alameda Co., California. ♂ taken on oatmeal and raisen bait in tangle of blackberry, brake ferns, poison oak and wild current. North facing slope near road. 2, 1/2

Feb. 24. — Hamilton Gulch, 650 ft., Berkeley, Alameda Co., California. ♀ taken in oat baited trap. In tangle of blackberry, Bacharus, Wild Current. Near large California Bay tree by side of dirt road. 3

Two embryos — 45 mm. Preserved) 1

7.

R

Palmer
1934

Peromyscus eremicus fraterculus

June 18 4 mi. NNE Claremont, 2000 ft., Los Angeles Co., Calif.
Caught one in 8 mouse traps.
These set on a rather steep hillside
just at the base of the foothills.
Hillside covered with rather straggly
growth of Artemisia and Salvia
apiana.

Aug 12 1 mi. NE Upland, 1350 ft., San Bernardino Co., Calif.
Caught 3 in 45 traps. All were
taken on gravelly to rocky ground
in a dry wash. Plants here were
Salvia apiana, Artemisia, Prunus
ilicifolia, dry grass and Sycamore
trees.

Palmer
1937.

Peromyscus maniculatus gambeli.

Feb. 4. 3 ft. above stream, opposite Dairy Station, Strawberry Canyon, Berkeley, Alameda Co., California.
One ♂ taken in oat baited trap in tangle of blackberry, Equisetum and brake ferns, under small willow Tested enlarged.

Mar. 9 900 ft. North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif.
One ♂ taken in oat baited trap in Microtus runway. Runway in open grassy meadow 60 ft from any brushy cover
Skull crushed — no skin —

Mar. 25 900 ft. 1/4 mi E.N.E of Botanical Garden, Berkeley, Alameda Co., Calif.
Took one ♀ in trap set under Artemesia on a rocky southwest facing slope which was rather steep.
Took two in traps set in Microtus runways in grass and sedges on southwest facing hillside with gradual slope. Quite a bit of brushy cover near — Poison oak, Artemesia, Bush Lupine and farther away Wild Blackberry.
One of the ♂'s #24.
Oat Bait.

Palmer 1937.

Peromyscus maniculatus gambeli.

Mar 25 Streamside just above Poultry Station. Strawberry Canyon, Berkeley, Alameda Co., Calif.

Took one ♀ in one of 4 traps set with bacon bait along the edge of the stream in Rope & getting Sorex trowbridgii montereyensis. Cover nearby was alder and Bay trees, Ninebark and Wild Rose bushes and Cow-Parsnip.

Mar 30 ½ mi. East of Archibald Ave. on 4th St. Guasti, San Bernardino Co., Calif.

Took 7 in traps set in the mouths of old burrows, in Bacharis, under Artemesia in the bottom of the wash, in a clump of dock (Rumex) and on sandy low hills beside the wash. Oat bait.

Noted the much paler coloration of pelage than the Berkeley specimens of this subspecies.

Mar 31 2 mi East of Archibald Ave on 4th St. Guasti, San Bernardino Co., Calif.

Took five in traps set on the low sandhills, in mouths of burrows and under Bacharis (Mule-fat)

Palmer
1934

Peromyscus maniculatus

Aug 13 5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.
Caught 11 in 70 traps. These set on a large sand dune about ½ mi. long and 50 ft. wide which was rather thickly overgrown with Russian Thistle, sunflowers, and Squaw Bush (Rhus trilobata).

Sept 29 1000 ft., ¼ mi. E NE Botanical Garden, Berkley, Alameda Co., Calif.
Caught 3 in 45 traps set on a rather steep south facing hillside covered with dry grass in areas between Artemisia, Baccharis, Rhus diversiloba, Bush Lupine, Wild Blackberry and Willows.

Palmer
1934

Peromyscus boylii rowleyi

June 20 San Antonio Canyon, 4000 ft. San Bernardino Co. Calif.

Caught 3 in 8 mouse traps set around a cabin in a rather narrow canyon with a small stream in it lined with Big-leafed Maple, Alder and California Laurel. Around the cabin were Sycamores, Scrub Oak and Canyon oak, and Mountain Mahogany.

26

Palmer 1934-

Peromyscus truei gilberti

Feb. 7- Hillside south of Strawberry Pool, 1/8 mile East of Stadium, Berkeley, Alameda Co., California.

One male taken in oat baited trap in tangle of blackberry, brake ferns, poison oak, Corylus, and wild Currant. North facing slope near road. Took P. c. californicus within a few feet.

Feb 24. Hamilton Gulch, 650 ft., Berkeley, Alameda Co., California -

Three taken in oat and raisen baited Traps. Two ♂ and one ♀.

One male taken in dense growth of west sloping Bacharus beside the road on hillside covered with Land Chaparral.

One male taken beside road in clump of Bacharus, Wild Blackberry and Soap-root (Chlorogalum), beneath periphery of large California Bay tree. ~~Female taken~~. Hillside with north exposure -

Female taken in open on west facing cut by road. Dense foliage a few feet above: Corylus, Ribes (Flowering Currant), Bacharus, Poison oak etc -

Palmer 1934.

Peromyscus Truei gilbertii.

Mar 14 600 ft., North side of Claremont Canyon, Berkeley, Alameda Co., Calif.
Took one ♀ #17 in trap set under Bacharus on the west side of a gulley. Very brushy with lots of poison-oak + Bacharus.
Took one male in trap set on bare ground under Artemisia further up the same gulley
Oat bait.

Mar. 25 900 ft., ¼ mi E.N.E of Botanical Garden Berkeley, Alameda Co., Calif.
Took one ♂ in Trap set under Artemesia on dry gravelly hillside with rather steep slope and south exposure. Other cover near mainly Bacharus but much less of this than Artemisia

Palmer
1934

Microtus c. californicus

Feb. 24. Dwight Way Hill, Berkeley, Alameda Co., California. 650 ft

♀ taken in runway in Puccinellia and Hordeum grass at base of Bacharus bush. Well developed system of runways around several bushes. Cut leaves of Soap-root (Chlorogalum) found in runway - Oatmeal and raisin bait.

Mar. 4 500 ft. North side of Dwight Way Hill, Berkeley, Alameda Co., Calif.

♀ 11 - taken in well formed runway in Puccinellia grass and Chlorogallum (Soap-root). There were several well worn runways forming a system that did not extend beyond the limits of chlorogallum. Only a few burrows were seen. While setting traps, one microtus was observed cutting leaves of Soap-root probably for food, possibly to use in the bottom of the nest

Oat bait.

Mar. 8 1/4 mi. N.E. of Botanical Garden 800 ft, Strawberry Canyon, Berkeley, Alameda Co., Calif.

♀ 12. Taken in oat baited trap in runway thru dried grass & Thistles. Trap had not been set 10 minutes

Palmer 1934

Microtus c. californicus

when it was heard to snap and the mouse was caught.

Had four 12 mm. embryos.

Mar 9. 900 ft. North Fork of Strawberry Canyon, Berkeley, Alameda Co., Calif.

Young ♂ taken in runway in Juncus and grass. Runways very thick here - Open grassy meadow with only slight slope, west exposure.

Oat bait -

Skull crushed so no skin.

Mar. 25 900 ft., 1/4 mi E.N.E of Botanical Garden, Berkeley, Alameda Co., Calif.

#22 ♀ taken in trap set in runway in Juncus and grass. Very extensive system of runways which were much wider than the average in grass - width 3 - 6 inches. Some were very well worn. At one place a side branch ran out to a spot where there were a great number of feces. These were 1/4 - 3/8" long and about 1/8" in diameter. The ends were rather blunt. A trap was set here and a young ♂ taken. The ♀ (#22) contained five 10 mm. embryos.

South facing grassy slope with some bushes of Artemesia.

Palmer
1934

Microtus c. californicus

Sept. 29 1000 ft., ¼ mi ENE Botanical Garden, Berkeley, Alameda Co., Calif.

Caught 3 in 45 traps on a south facing rather steep hillside. Two were taken in dry grass, one in a well worn runway, the other at the mouth of a small hole about 1½ in. in diameter. The other was taken at the mouth of a small burrow in dry bare ground in a good sized space between *Artemisia* bushes

Palmer
1934

Sylvilagus audubonii

Aug 8 Imi. N Springville, 2100 ft. Tulare Co., Calif.
My brother G. L. Palmer shot one in a dry grassy flat which was spotted here and there with Valley Oak and Blue Oaks. This specimen contained a small tapeworm about 6 inches long.

Section 3

F. H. Palmer
Dec. 1934 - Jan., 1935

San Bernardino, Los Angeles
and Riverside Co., Calif.

Local - Feb.-Mar. 1935

F. L. Palmer
1934 and 1935 (Part)
San Bernardino Co.,
Los Angeles Co.,
Riverside Co.

acc. 4567

Palmer
1934

Catalog

1158 Columbia Ave, Ontario, San Bernardino Co. Calif. Dec. 21, 1934

269 ♀ Thomomys b. pallescens - 213-73-29-7

1 mi. E Ontario, 1050 ft., San Bernardino Co., Calif. Dec. 22, 1934

270 ♂ Dipodomys m. parvus 222-128-36-13

271 ♀ " " " - [207] - [103] - 35-13

272 ♂ Peromyscus maniculatus - 142-60-20-17

273 ♂ " " - 157-74-21-18

274 ♀ " " - 152-69-20-16

275 ♀ " " - 155-72-19-17

276 ♀ " " - 167-75-20-17

277 ♂ " " - 157-75-20-18.5

1158 Columbia Ave., Ontario, San Bernardino Co., Calif

Dec. 23, 1934

278 ♀ Thomomys b. pallescens - 216-64-29-8

Dec. 24, 1934

279 ♀ Thomomys b. pallescens - 210-67-28-7

280 ♂ Juv. " " " - 180-60-28-6

1½ mi. NE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 24, 1934

281 ♂ Dipodomys a. agilis - 292-174-41-17

282 ♂ Peromyscus maniculatus - 153-67-20-17

283 ♀ " " - 149-65-19-17

284 ♂? Brown Towhee -

Palmer
1934

Catalog

1 mi. N Ontario, 1075 ft., San Bernardino Co., Calif.

285 ♀ Thomomys b. fallescens Dec. 26, 1934 -214-71-28-8

2 mi. ENE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 26, 1934

Skin Only 286 ♂ Dipodomys a. agilis -290-172-40-17 Skin Only

287 ♀ " " " -281-169-41-16

288 ♀ " " " 262-160-39-16

289 ♂ 291-175-42-16

Skull Only 290 ♀ Reithrodontomys m. longicaudus 151-79-17.5-15

2 mi. SE Norco, Approx. 700 ft., Riverside Co., Calif.

Dec. 27, 1934

291 ♀ Peromyscus eremicus crinitus? -199-111-20-[18]

1 mi. N Ontario, 1075 ft., San Bernardino Co., Calif.

Dec. 27, 1934

292 ♂ Thomomys bottae fallescens 206-63-26-7

1 mi. NW Warrens Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 28, 1934

293 ♀ Dipodomys m. similis? 250-150-38-15

294 ♂ Peromyscus crinitus? -168-94-19-18

295 ♀ " eremicus -190-101-20-18

Skull Only 296 ♂ " " -180-96-20-18

Skull Only 297 ♂ " crinitus -184-100-21-18.5

Skull Only 298 ♀ " crinitus -183-98-20-19

Cottonwood Springs, 1 mi. W Old Woman Springs, San Bernardino Co., Calif. Dec. 29, 1934

299 ♀ Dipodomys d. deserti -324-186-51-19

300 ♀ " " " -344-200-51-18.5

Palmer
1934

Catalog

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif. Dec. 29, 1934

301 ♂ Dipodomys d. deserti – 343-199-51-18
302 ♂ Dipodomys m. merriami - 245-154-37-13
303 ♀ " " " -248-144-37-13
304 ♂ Neotoma lepida lepida - 285 - 112 - 33-29
305 ♀ " " " -282-121-30-28
Skull Only 306 ♂ Peromyscus eremicus? -197-109-20-18.5
307 ♂ " " -192-106-21-18.5
Skull Only 308 ♀ " " -175-91-21-18.5
Skull Only 309 ♂ " crinitus ? -167-92-20-17
Skull Only 310 ♂ " " -174-99-19-19
311 ♂ " maniculatus -155-77-21-19
Skull Only 312 ♂ Neotoma l. lepida -284-136-31-30

~~3 mi. E Ontario, 1025 ft., San Bernardino Co., Calif.~~
~~Dec. 31, 1934~~

~~313 Dipodomys m. parvus.~~

Deer Cañon Wash, 4½ mi. NE Upland, 1550 ft., San Bernardino Co., Calif.

Dec 31, 1934

314 ♂ Peromyscus californicus 233-127-27-23
315 ♂ " " -242-134-27-24
316 ♀ " " 182 - 76 - 27-23
317 ♀ " eremicus fraterculus -190-105-21-19
318 ♂ " " " -189-104-21-18
Skull Only 319 ♂ " boylii rowleyi -185-86-22-18
320 ♀ Dipodomys agilis - 298-176-44-18

Palmer
1934

Catalog

Dew Cañon Wash, 4½ mi. NE Upland, 1550 ft.,
San Bernardino Co., Calif.

Dec. 31, 1934

321 ♂ Dipodomys agilis 308-188-44-18.5
322 ♂ " " - 302-181-44-18.5
323 ♂ " " - 295-177-44-18

6¼ mi. E Ontario, 1025 ft., San Bernardino Co, Calif.

Jan. 6, 1935

324 ♀ Shrike
325 ♀ Spotted Towhee

Jan. 7, 1935

326 ♂ Dipodomys m. parvus. -230-136-35-12
327 ♀ Reithrodontomys m. longicaudus-144-77-18-13

Foot of Hog Back, 3250 ft., San Antonio Cañon, Los Angeles Co.,
Calif.

Jan. 9, 1935

328 ♀ Jun. Teolona fuscipes? -293-135-32-27

Palmer
1934

Itinerary

1158 Columbia Ave., Ontario, San Bernardino Co., Calif.

Dec. 20. At my home at the above locality, set 2 gopher traps in a burrow in the garden.

Dec. 21 Caught one ♀ *Thomomys b. pallescens* in the set made last night

In the P.M. drove E 5 mi. on 4th St. and set 30 gov.-sized mouse traps on a sand dune in an old peach orchard. The only plants growing here were Russian Thistle. Then drove 2 mi. farther E and set 50 gov.-size mouse traps on a large sand-dune which was overgrown with Squaw-bush (*Rhus trilobata*), *Rumex* sp., *Artemisia* sp., Russian Thistle and green grass. 5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif

Dec. 22. Caught 3 *Dipodomys a. agilis*, 4 *Peromyscus maniculatus* and 1 *Reithrodontomys m. longicaudus* in 30 gov. size mouse traps 7 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 1 *Dipodomys a. agilis*, 2 *Dipodomys m. parvus*, 11 *Peromyscus maniculatus* and 1 *Mus musculus* in 50 traps set here on a large sand dune.

Palmer
1934

Itinerary

1158 Columbia Ave., Ontario, San Bernardino Co., Calif.

Dec. 22 In P.M. set 3 gopher traps in a burrow with fresh mounds in a vacant lot across the street from my home.

Dec. 23 Caught 1 ♀ *Thomomys b. pallescens* in the gopher set made last night.

In P.M. drove E on 5th St. about 1 mi. Here in a wash set 30 gov.-sized mouse traps. The ground was sandy, gravelly or rocky and was sparsely covered with low bushes of *Artemisia*, *Senecio douglasii*, *Eriogonum fasciculatum*, *Lotus glabra* and *Sambucus glauca*. In some places, the ground was matted with *Erodium* and low grass.

Examined the traps at 10 P.M. and found they had caught mammals of the following species: 1 *Dipodomys a. agilis* and 3 *Peromyscus maniculatus*.

Dec 24 1½ mi. NE Ontario, 1100 ft. San Bernardino Co., Calif.

In the 30 mouse traps found only 1 *Peromyscus maniculatus*. It appears that the small rodents here must feed early in the evening ~~late~~, as indicated by the larger catch between 6 P.M and 10 P.M. than between 10 P.M and 6 A.M.

Palmer
1934

Itinerary

1158 Columbia Ave., Ontario, San Bernardino Co., Calif.

Dec. 24 Two small boys brought in 2 Rhonomys they had trapped in a vacant field nearby. In the afternoon shot a Brown Towhee a little west of where the traps were set last night. This place designated the same locality as specimens trapped last night. c.e. 1½ mi. NE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 25 In P.M. drove E on 6th St. to a point, 2 mi. ENE Ontario, 1100 ft., San Bernardino Co., Calif. where set 55 gov.-sized mouse traps: about 10 traps were set in rather poorly formed runways in some green foxtail grass. The rest were set down a sandy wash among low bushes of: Eriogonum, Artemisia, Senecio, Lotus glabra and some green grass.

Dec. 26 2 mi. ENE Ontario, 1100 ft., San Bernardino Co., Calif. In 55 gov.-size mouse traps caught mammals of the following species: 6 Dipodomys agilis, 6 Peromyscus maniculatus and 3 Reithrodontomys m. longicaudus.

Shot 2 robins here and saw Audubon Warblers, Brewer Blackbirds, Doves, Western Bluebirds, Flickers, Sparrow Hawk, Shrike, and Linnets.

Itinerary

Palmer
1934

1158 Columbia Ave, Ontario, San Bernardino Co, Calif.

Dec 26 (cont'd) Two boys, one of them my cousin A. R. Maharin, brought in a ? Thomomys.

Left home (Ontario) at 4:30 P.M with G. L. Palmer and E. H. Bailey and drove S 8 mi. and then in general SE direction to Norco. From Norco drove about 2 mi. SE into the hills to a point: 2 mi. SE Norco, approx. 700 ft., Riverside Co., Calif. There camped in a grassy canyon by a dry stream-bed. The hills on either side were low rounded with occassional outcrops of large rounded granite boulders. On the hillsides were rather thick growths of low shrubs, : Artemisia, Eriogonum and . The ground beneath was commonly covered with grass and Erodium but in many places was bare ground. In the flat near camp were a few willows, Cottonwoods and scattered plants of Nicotiana tobacum.

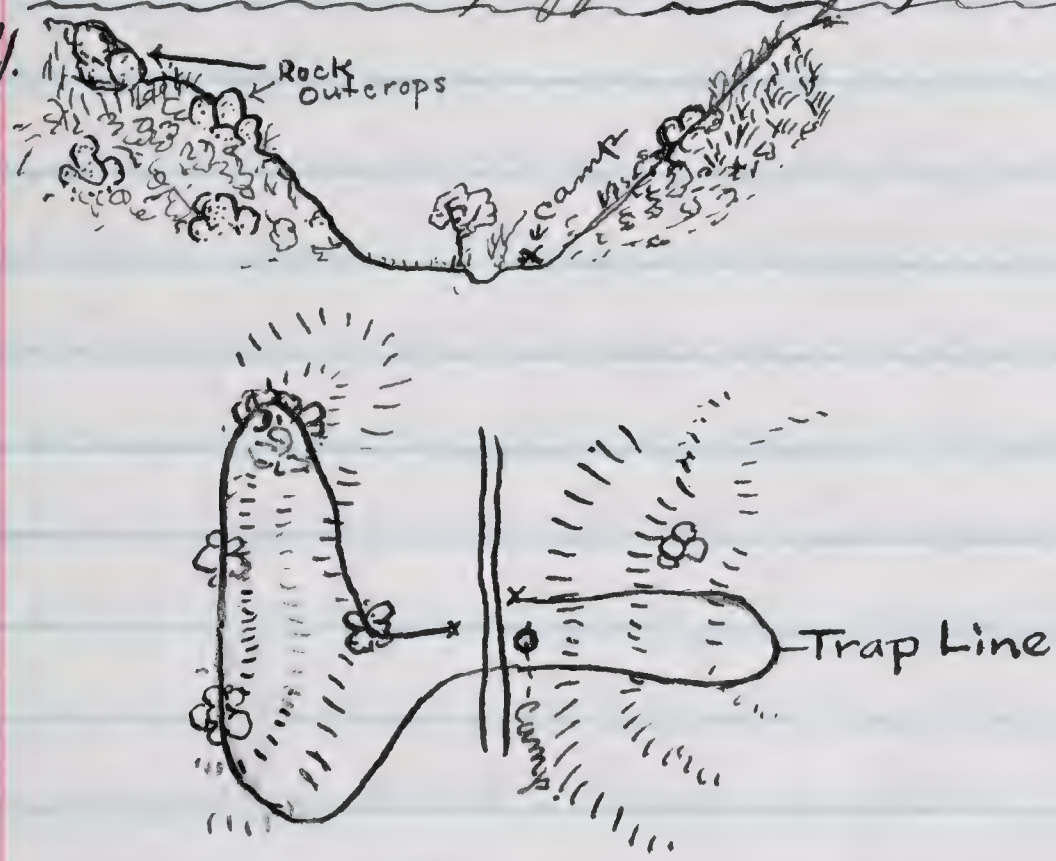
Set 90 traps (gov-size mouse) after dark by using flashlight. The line was run in a big loop up one side of the canyon then crossing over and up the other side of the canyon. About 1/4 of the traps were set in the rock outcrops and the rest in the low chaparral.

Itinerary

Palmer
1934

½ mi. SE Norco, approx. 700 ft., Riverside Co., Calif.

Dec. 26 Contd.



The weather was clear until 11:30 P.M. when it started to cloud up and by morning was drizzling slightly

Dec. 27 In 90 gov.-size mouse traps, caught 3 Peromyscus ~~crinitus~~ (or eremicus?). All were taken in rocky outcrops.

Drove back to Ontario in the morning.

About 5 P.M. party of H.S. Bailey, E.T. Bailey, F.F. Palmer and myself, left Ontario on U.S. Highway 99 and drove E via Guasti, Bloomington, Colton, Redlands, Beaumont, Banning, Cabezon and Whitewater. About ½ mi. beyond Whitewater, turned N and drove via the 29 Palms road as far as the Lone Star Ranch (Warren's Tanks?) when turned left on the road to the Windmill and camped.

Itinerary

Palmer
1937

1 mi. NW Warrens Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 27 cont'd. The country here is gently sloping upward from Morongo Valley to low hills studded with large granite outcrops of rounded boulders. Here we camped in the edge of the hills. Camp was at the lower edge of the Juniper belt. Other plants here were mainly Eriogonum and Ephedra with Joshua trees, Catclaw and Cholla cactus, more scattered. The soil was largely gravelly, formed from decomposed granite with farther out from the rocks more sandy soil.

After dark, set a line of 60 gov.-size mouse traps and 2 rat traps by flashlight, running the line down the rocky walls of a canyon, out onto the open country and around and back up the other side of the rocky canyon. About ½ the traps were set in the rocks and ½ out on the level.

Dec. 28 In the line of traps caught 2 Dipodomys merriami and 5 Peromyscus crinitus? and 1 Reithrodontomys ?, the latter all taken in the rocks.

Broke camp about 10 A.M. in a rain and drove to the Windmill, then took a side trip up Pipes Canyon to the Pipes.

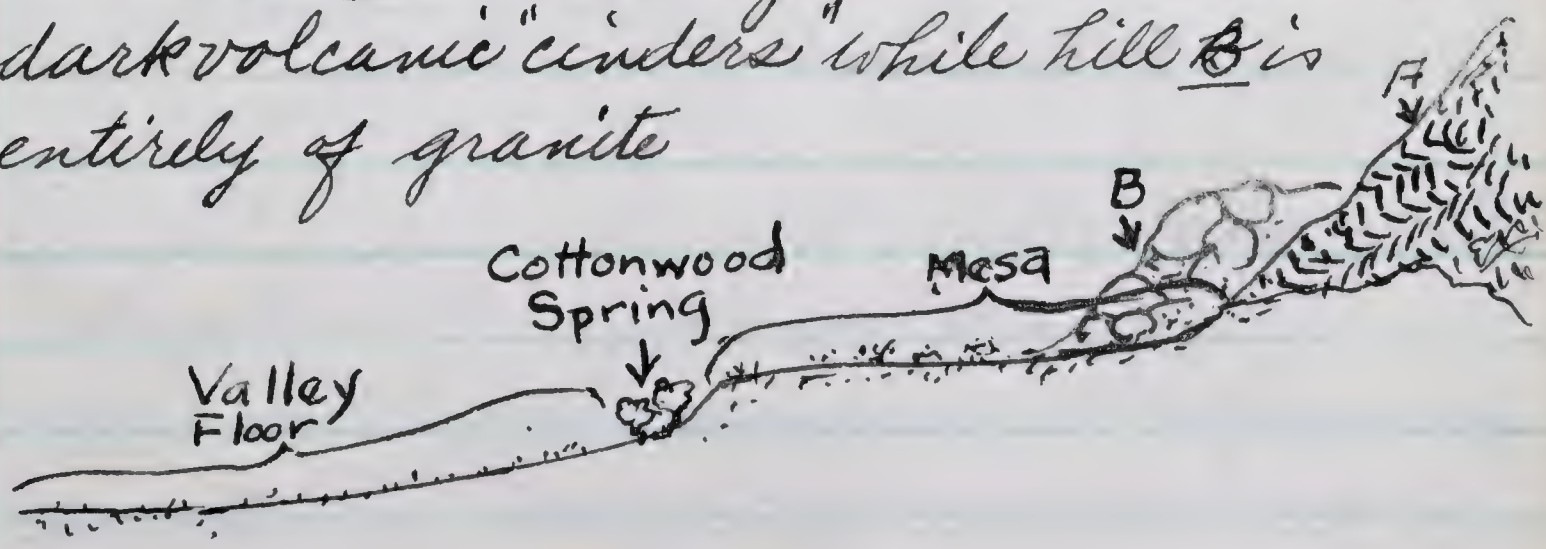
Palmer
1934

Itinerary

1 mi. NW Warrens Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 28 cont'd. Then returned to the Windmill and drove on the Victorville road to Old Woman Springs, and camped about 2 P.M. 1 mi. W of Old Woman Springs at Cottonwood Springs. The elevation there was about 3190 ft., as the bench mark at Old Woman Springs indicates 3186 ft. Cottonwood Springs is situated where a low "mesa" of volcanic tuff meets the main valley floor. This slight elevation extends back fairly level for about ½ mi. to some granite & volcanic hills which rise rather abruptly. S of Cottonwood Springs it is covered deeply and much of its extent by fine dune sand. Most of this area has scattered shrubs of Creosote Bush (Covillea), Atriplex, Chenopodium, and other xerophilous shrubs.

The hill A in the diagram is covered with dark volcanic "cinders" while hill B is entirely of granite

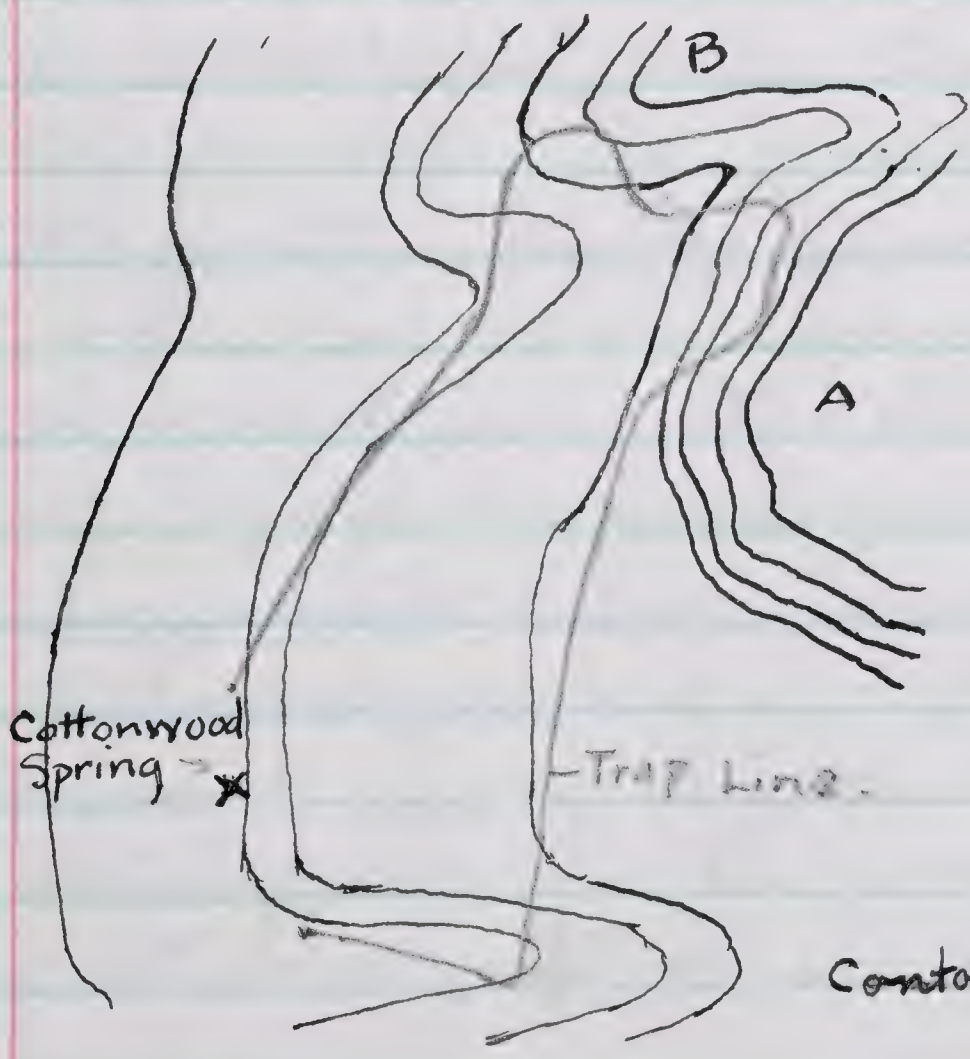


Palmer
1934

Itinerary

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 28
Cont'd. About 4 P.M., set a line of 90 gov.-size mouse traps in a line which ran largely ~~over~~ across fine deep sand with scattered brushes. The line extended up the nearby hills across the "cinder" area then down and thru the wash and up again into the granite boulders and back across the sand to camp.



Contour interval = approx. 10 ft.

Dec. 29 Caught mammals of the following species in trap line: 4 *Dipodomys deserti*, 2 *D. merriami*, 3 *Neotoma lepida*, 5 *Peromyscus eremicus*? and 1 *Peromyscus maniculatus* in 90 mouse and 5 rat traps.

Palmer
1934

Itinerary

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Cont'd. Broke camp 10 A.M. and drove home via Box S Ranch, Lucerne Valley, Cajon Pass, Devore, Etiwanda, Alta Loma and Upland, arriving at Ontario at 11:50 A.M.

Dec. 30 Deer Canyon Wash, 4½ mi. NE Upland, 1550 ft., San Bernardino Co., Calif.

From my home 1158 Columbia Ave., Ontario, Calif. drove E on 4th St. to Archibald Ave., where turned north to Highland Ave. and E on Highland Ave. to the locality indicated above.

There set 55 gov.-size mouse traps in a wash with rather thick low (2½-3 ft. high) chaparral of Lotus glaber, Salvia apiana, Adenostoma fasciculatum, Eriogonum fasciculatum?, Artemisia sp., and in a few places larger shrubs + Prunus ilicifolia and Cercocarpus betulaefolias. Soil here was sandy loam with some spots of water worn boulders and sand.

Then drove W on Highland Ave. to Archibald Ave., and S ~~on~~ to 4th St. there turned E for about 1 mi., to a place. 3 mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

Itinerary

Palmer
1934
Dec. 30
Cont'd. There set 10 gov.-size mouse traps on a sandy ridge grown over with Russian Thistle. Also set 5 mouse and 3 rat traps in an old vineyard drifted over with sand.

Examined these traps 3 mi. E Ontario at 9 P.M. and found 5 Peromyscus maniculatus in the traps.

Deer Canyon Wash, 4½ mi. NE Upland, 1550 ft., San Bernardino Co., Calif.

Dec. 31 In 54 gov. size mouse traps took mammals of the following species: 8 Dipodomys agilis, 3 Peromyscus californicus insignis, 5 P. eremicus fraterculus, 1 P. boylei rowleyi and 1 P. maniculatus.

3 mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

In 15 mouse and 3 rat traps took mammals of the following species: 5 Peromyscus maniculatus and 1 Dipodomys agilis

Jan. 6
1935 Drove E from Ontario in A.M to a point: 6¼ mi. E Ontario, 1025 ft, San Bernardino Co., Calif. There in a wash, shot 1 Shrike and 1 Spotted Towhee. Saw a Golden Eagle on a telephone pole and 2 Ferruginous Rough-Leg flying low over the vineyards.

In P.M. returned and set out 65 gov.-size mouse traps. About ⅔ of the traps were set on a sand dune which runs nearly N and S for about ½ mi. The dune had some plants growing on it: Rumex,

Palmer
1935

Itinerary

Jan. 6 cont'd. 6/4 mi. E Ontario, 1025 ft., San Bernardino Co., Calif. a few scattered bushes of Artemisia, fewer scattered clumps of white sage (Salvia apiana) and 3 or 4 elder bushes (Sambucus glauca) There was a vineyard to the E of the dune but to the W a wash ran thru. There was a flat about 100 ft. wide between the dune and the wash. This was covered with Erodium and short grass with scattered small willows, Artemisia and cactus (Prickly pear) On this flat area, the remaining 1/3 of the traps were set.

Jan. 7 In 64 gov.-size mouse traps took mammals of the following species: 32 Peromyscus maniculatus, 1 Dipodomys merriami, 10 D. agilis and 1 Reithrodontomys megalotis.

Jan. 8 Drove N from Ontario thru Upland and San Antonio Heights to San Antonio Cañon and up the Cañon about 4½ mi. to ~~the~~ a cabin at: Foot of Hog Back, 3250 ft., San Antonio Cañon, Los Angeles Co., Calif. The place is known locally as Opsaw Glen. In the cabin set 6 mouse and 3 rat traps.

Jan. 9. Caught 1 Neotoma fuscipes in a rat trap..

Palmer
1934.

Thomomys bottae

1158 Columbia Ave., Ontario, San Bernardino Co, Calif.

Dec. 21 Caught one ♀ in a set made in burrows in the backyard of my home. The soil here is a sandy loam with few rocks and at this time is rather damp.

Dec. 23 Caught one ♀ in a set made in a burrow with fresh mounds in a vacant lot across the street from my home. The lot was grown over with weeds, most of them dry but the Erodium and Foxtail grass were all green. Several burrow mouths opened into large clumps of grass, but no evidence of grass cutting could be seen

Dec. 24 Two boys brot in 2 gophers they had trapped in a field close to my home.

1 mi. N Ontario, 1075 ft., San Bernardino Co., Calif.

Dec. 26. The same 2 boys that brot in gophers on Dec. 24 brot in one today. (The locality indicated is 1 mi. N of the center of town)

Palmer
1934

Dipodomys merriami

7 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 2 of the race *parvus* on a large sand dune which was quite thickly overgrown with Squawbush (*Rhus trilobata*), Russian Thistle (*Salsola Kali*), *Rumex* sp., *Artemisia* sp. and green grass about 2-8 inches tall.

1 mi. NW Warren's Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 28 Caught 2 in 60 gov.-size mouse traps set on decomposed granite soil with associated plants: *Eriogonum*, and *Ephedra* the 2 chief ones and Joshua trees, catclaw and cholla cactus more scattered.

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Caught 2 of the race *merriami* in 90 gov.-size mouse traps. Both were taken on level sandy ground with scattered bushes of *Covillea*, *Atriplex*, *Chenopodium* and other xerophytic plants. Many tracks & this species were observed and holes were quite common, but only the 2 were caught.

6¼ mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

Jan. 6 1935 Caught 1 in 65 traps set on a large sand dune. This specimen was taken by a large bush of *Salvia apiana*, with *Sambucus*, *Rumex* and *Salsola* nearby

Palmer
1934

Dipodomys agilis

5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 3 in 30 gov.-size mouse traps set in a sand dune in an old peach orchard. The only plants here were dead Russian thistle (Salsola kali). Tracks and tail marks were quite common in the sand.

7 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 1 in 50 gov.-size mouse traps set on a large sand dune quite thickly overgrown with Rhus trilobata, Rumex, Artemisia and some green grass.

1½ mi. NE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 23. Caught 1 by 10 P.M in 30 gov.-size mouse traps set at 5:30 P.M. in a wash with sandy gravel and rocky ground with sparse cover of Artemisia, Senecio douglasii, Eriogonum fasciculatum, Lotus glaber (= glabra) and Sambucus glauca.

2 mi. E NE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 26 Caught 6 in 55 gov.-size mouse traps set in a gravelly wash with sparse growth of shrubs 1½-3 ft. high. The shrubs were: Eriogonum, Artemisia, Senecio douglasii and Lotus glabra.

3 mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

Dec. 31 Caught 1 in 15 mouse and 3 rat traps. Set on a sandy ridge with dry Russian Thistle.

Dipodomys agilis

Palmer
1934

Deer Cañon Wash, 4½ mi NE Upland, 1550 ft. San Bernardino Co., Calif.

Dec. 31 Caught 8 in 54 gov.-size mouse traps set in a wash with rather thick low chaparral (2½ - 3 ft. high) of Lotus glaber, Salvia apiana, Adenostoma fasciculatum, Eriogonum fasciculatum and Artemisia. In a few places larger shrubs 6 - 12 ft. high - Prunus ilicifolia and Cercocarpus betuloefolia. All the specimens were taken on level ground, with few or no rocks, between bushes.

6¼ mi. E Ontario, 1025 ft. San Bernardino Co., Calif.

Jan. 7 1935 Caught 10 in 64 gov.-size mouse traps set along a sand dune in Rumex, Salsola Kali, Artemisia and scattered Sambucus glauca and across a flat with thick growth of short grass and Erodium with scattered willows and clumps of prickly pear and squawbush (Rhus trilobata).

Palmer
1934

Dipodomys deserti

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Caught 4 in 90 gov.-size mouse traps set across fine, deep sand with scattered bushes 4-5 ft. high of Covillea and a leguminous spiny shrub with yellow flowers and a repulsive odor. Leaves of the latter were found in the cheek pouches of one specimen but unfortunately specimens of the plant were lost. Many large footprints and tail-tracks of Kangaroo Rats apparently of this species were seen. Many of the traps were sprung but contained no specimens and as all the ones taken were caught in mouse traps it is probable that this form is much more common than the trapping record indicates

Palmer
1934

Reithrodontomys megalotis

5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 1 in 30 gov.-size mouse traps set on a sand dune in an old peach orchard. The only plants here were dead Russian Thistle (Salsola kali). This specimen was caught by the tail and taken home alive but it escaped.

2 mi. ENE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 26 Caught three in traps set in small runways in green foxtail grass (Hordeum) 4-10 inches high in the edge of a peach orchard.

6¼ mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

Jan. 7
1935 Caught 1 in 64 gov.-size mouse traps. This specimen was taken on a flat area by a wash, covered with Erodium and short grass with scattered willows and prickly pear cactus.

Peromyscus crinitus ?

Palmer
1924.

1 mi. NW Warren's Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 28 Caught one in 60 gov.-size mouse traps. This one was taken in a trap set among large granite boulders in the bottom of a narrow, rocky cañon. The trap had only been set a few minutes before it was sprung. The cañon was practically bare of plant life except for a few scattered bushes of Catclaw (*Acacia greggii*?) growing in cracks in the rocks.

Cottonwood Spgs., 1 mi. Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Caught 2(?) in 90 mouse traps. These were taken close to the bases of 2 rocky hills. Plants nearby were mainly Creosote bush (*Covillea*), [redacted] *atriplex* and *Chenopodium*(?).

Palmer
1934

Peromyscus californicus.

Deer Cañon Wash, 4½ mi. NE Upland, 1550 ft., San Bernardino Co., Calif.

Dec. 31 Caught 3 = 2 ♂♂ and 1 ♀, in 55 gov.-size mouse traps set in a wash with fairly thick low chaparral 2½ - 3½ ft. high. Plants were: *Lotus glaber*, *Salvia apiana*, *Adenostoma fasciculatum*, *Eriogonum fasciculatum*; *artemisia* and a few clumps of larger shrubs 5 - 10 ft. high - *Prunus ilicifolia* and *Cercocarpus betuloefolias*. The soil here was mostly sandy loam with scattered waterworn boulders and sandy spots.

Palmer
1934

Peromyscus eremicus.

2 mi. SE Norco, approx. 700 ft., Riverside Co., Calif.

Dec. 27 Caught 3 in rocky outcops of large rounded granite boulders on the low hills which were sparsely covered with Eriogonum, Artemisia and other low shrubs. (90 traps out).

1 mi. NW Warrens Well, Morongo Valley, San Bernardino Co., Calif.

Dec. 28 Caught 4 in sixty traps. All were taken in rock outcops of large rounded granite boulders at the lower edge of the hills. Plants were mainly Eriogonum and Ephedra scattered between the boulders, with a few bushes of Catclaw (Acacia greggii) and Juniperus. Cottonwood Spgs., 1 mi W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Caught 3 (?) in 90 gov.-size mouse traps. All were taken on rather ~~to~~ level, sandy ground with scattered bushes of Covillea, Atriplex and Chenopodium.

Deer Cañon Wash, 4½ mi NE Upland, ~~San~~ 1550 ft., San Bernardino Co., Calif.

Dec. 31 Caught 5 in 54 gov.-size mouse traps which were set on rather level sandy & rocky soil with rather thick, low chaparral of Lotus glabra, Salvia apiana, Adenostoma fasciculatum, Eriogonum fasciculatum & Artemisia.

Peromyscus maniculatus

Palmer
1934

5 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 4 in 30 gov.-size mouse traps set on a sand dune in an old peach orchard. Only plants present were dry Russian Thistle (Salsola)

7 mi. E Ontario, 1050 ft., San Bernardino Co., Calif.

Dec. 22 Caught 11 in 50 gov.-size mouse traps set on a large sand dune fairly thickly overgrown with *Rhus trilobata*, *Rumex*, *Artemisia* and *Salsola*.

1½ mi. NE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 23 Caught 3 in 30 mouse traps set in a wash of sandy to rocky soil with the part that was not watercut, covered with grass, *Erodium* and scattered low bushes of *Artemisia*, *Senecio douglasii*, *Eriogonum fasciculatum* and *Lotus glabra*. These were caught by 10 P.M. when traps were examined by flashlight after setting traps about 6 P.M.

Dec. 24 Caught 1 in 30 traps between 10 P.M and 6:30 A.M.

2 mi. ENE Ontario, 1100 ft., San Bernardino Co., Calif.

Dec. 26 Caught 6 in 55 gov.-size mouse traps set down a sandy wash in which was a sparse growth of low shrubs: *Eriogonum*, *Artemisia*, *Senecio* and *Lotus glabra*.

Palmer
1934

Peromyscus maniculatus

Cottonwood Spgs., 1 mi W Old Woman Spgs., San Bernardino Co., Calif.

Dec. 29 Caught 1 P. m. sonoriensis in 90 mouse traps which were set mainly on deep sand which had a scattered growth of Covillea, Atriplex, Chenopodium, Deer Cañon Wash, 4½ mi. NE Upland, 1550 ft., San Bernardino Co., Calif.

Dec. 31. Caught 1 in 54 gov. size mouse traps set in wash land rather thickly grown up with Salvia apiana, Adenostoma fasciculatum, Eriogonum fasciculatum, Artemisia and a few scattered clumps of Prunus ilicifolia and Cercocarpus betuloefolias. Apparently P. eremicus fraterculus and this species are mutually exclusive here. This is the only place I have caught both in the same trapline.
3 mi. E Ontario, 1025 ft. San Bernardino Co., Calif.

Dec. 30 Examined traps set at ~~6~~ 6 P.M at 10 P.M. and found 5 in 15 gov.-size mouse traps set on sand dunes in an old vineyard.

Dec. 31 From 10 P.M. Dec. 30 to 6 A.M. caught 5 in 12 mouse traps set on sand dunes. Apparently here, the mice are as active ~~in the~~ late at night or early in the morning as they are in the evening.

Palmer
1935

Peromyscus maniculatus

6¼ mi. E Ontario, 1025 ft., San Bernardino Co., Calif.

Jan. 7 Caught 32 in 64 gor.-size mouse traps set along the top of a large sand dune which was somewhat overgrown with Rumex, Salsola (dead), and scattered bushes of Artemisia and Salvia apiana, and on a flat below covered with a thick growth of Erodium and short grass with scattered clumps of small willows, Artemisia, Rhus trilobata and prickly pear cactus.

Palmer
1934

Peromyscus boylei

Deer Cañon Wash, 4½ mi. NE Upland, 1550 ft.,
San Bernardino Co., Calif

Dec. 31. Caught 1 in 55 gov.-size mouse traps set in chaparral of a wash. This one was taken in a small pile of water-worn boulders in a thicket of Cercocarpus betulaefolias which also had a few scattered plants of Prunus ilicifolia mixed in.

Palmer
1934.

Neotoma lepida

Cottonwood Spgs., 1 mi. W Old Woman Spgs., San Bernardino Co., Calif.

Dec 29 Caught 3 in 5 rat traps. One was taken in front of a hole under a bush in the side of a wash-bank. Another was taken on black lava rocks on a rather steep hillside. The third was taken in a trap set by a large nest between two very large rounded granite boulders. This nest was made up of sticks, stones up to 1½ in. diameter, bones, horse dung and cactus thorns. About the entrances was a great mass of droppings, probably indicating long tenancy of this nest by wood-rats.

Palmer
1934.

Neotoma fuscipes.

Foot of Hog Back, 3250 ft., San Antonio Cañon, Los Angeles Co., Calif.:

Jan. 9. Caught 1 in 3 rat traps set in a shed adjoining a cabin. The rat had been storing fruits of the California Bay tree and had completely filled a large dish-pan and had filled 2 large pitchers nearly full. The Calif. Bay and White Alder are the only trees in the streamside association where the cabin was situated.

Palmer
1935

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif. Feb. 27, 1935

329 ♂ Reithrodontomys megalotis - 138-74-18-19 Wt. 10.7 g.
330 ♂ " " - 147-78-18-14 Wt. 9.9 g.
331 ♂ " " - 150-78-17-14 Wt. 11.3 g.
332 ♂ Perognathus californicus - 194-107-25-11 Wt. 20.7 g.
333 ♀ Microtus californicus - 174-51-22-15 Wt. 64.6 g. 6 embs. x 28 mm.
334 ♀ " " - 167-42-21-16 Wt. 47.2 g. 4 embs. x 10 mm.
335 ♀ Peromyscus truei - 187-96-23-21 Wt. 24 g.

Red Hill, 1350 ft., 2 mi. NE Upland, San Bernardino Co., Calif. Mar. 25, 1935

336 ♂ Thomomys bottae - 227-70-30-7
337 ♀ " " - 230-74-30-7
338 ♂ " " - 221-77-27-7
339 ♂ " " - 238-79-31-8
Skull only 340 ♀ " " - 226-76-30-8

1158 Columbia Ave, Ontario, San Bernardino Co. Calif. Mar. 25, 1935

SKULL ONLY 341 ♂ Thomomys bottae - 269-94-33-8

Paradise Spring, T. 13 N. R. 1 E., San Bernardino Co., Calif. Mar. 26, 1935

342 Dipsosaurus dorsalis

Drinkwater Spring, T. 16 N. R. 4 E., San Bernardino Co., Calif. Mar. 26, 1935

343 Phrynosoma
344 Callisaurus ventralis

Palmer
1935

Catalog

Ivo Springs, T. 17N. R. 3E., San Bernardino Co., Calif.

Mar. 26, 1935

345 Phrynosoma sp.
346 Callisaurus ventralis
347 Uta sp.

Mar. 27, 1935

348 ♂ Onychomys torridus -124, 49-18-16.5
349 ♂ Perognathus ~~penicillatus~~ longimembris? 145-75-21-8
350 ♀? Perognathus longimembris -150-85-20-7
351 ♀ Dipodomys merriami. 245-148-37-14. 4 embryos x 5 mm.
352 ♀ " " 247-148-37-14 6 embryos x 10 mm.

3 mi. N Drinkwater Spr., T. 17N. R. 4E., San Bernardino Co., Calif.

Mar. 27, 1935

353 ♂ Thomomys perpallidus. 216-78-28-6 - Testis enlarged
354 ♂ " " -194-64-28-6 Testis enlarged
355 ♀ " " - 183 - 62 -26-6

Bear Flat, approx. 6000 ft., San Gabriel Mts., San Bernardino Co., Calif

Mar. 30, 1935

356 ♀ Thomomys b. neglectus - 194 - 57 -28-8

3 mi. N Drinkwater Spr., T. 17N. R. 4E., San Bernardino Co., Calif

Collected Mar. 27. Killed April 1, 1935

357 Crotaphytus wislizenii

3 mi. S Ivo Springs, T. 17N. R. 3E. San Bernardino Co., Calif.

Collected Mar. 27. Killed April 1, 1935

358 Sceloporus magister

Palmer
1935

Itinerary

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif.

Feb. 26 About 4 P.M. went up Strawberry Cañon with D.H. Johnson nearly to the head of the cañon to a peak known as "Sugarloaf" which is part of the ridge separating Strawberry cañon from Claremont Canyon. At an elevation of approx. 1300 ft., set out 51 gov. size mouse traps. About 1/3 of these were set on bare, gravelly ground beneath Artemisia bushes on the south side of the peak; About 1/3 were set in mixed Artemisia and Baccharis slightly lower down the south side and 1/3 were set on the west side of the peak in Microtus runways in the rather short, green grass.

Feb. 27. The night was rather cloudy but there was no rain. In the morning, a cold wind was blowing from the SW. Mammals of the following species were taken in 51 gov.-size mousetraps: Peromyscus maniculatus 2, P. truei 1, Perognathus californicus 1, Microtus californicus 4, Reithrodontomys megalotis 3. The first 3 species were all taken in mixed Baccharis and Artemisia and the

Palmer
1935

Itinerary

Sugarloaf Peak, Berkeley (cont'd.)

Feb 27 cont'd. latter 2 species were taken in the grass on the west side of the peak, with the exception of one Reithrodontomys taken rather far down the hill side in mixed Artemisia and Bacharis.

Mar. 23 Left Berkeley at 11 A.M. with A. L. Palmer and E. H. Bailey and drove via U.S. Highway 99 thru Tracy, Modesto, Fresno, Strathmore, Bakersfield to Pasadena where turned E on U.S. Highway 66 and drove to my home at 1158 Columbia Ave, Ontario, San Bernardino Co., Calif. at 4:30 A.M. Mar. 24.

Mar. 24 In P.M. drove N to Upland and then NE to Red Hill. At a point designated as: Red Hill, 1350 ft., 2 mi. NE Upland, San Bernardino, Calif., set 10 gopher traps in 5 sets in an uncultivated field of black peaty soil thickly overgrown with black mustard, barley, clover, and alfilaria (Erodium).

Mar. 25 Red Hill, 1350 ft., 2 mi. NE Upland San Bernardino Co., Calif.

Caught 5 gophers in 5 sets. Two were taken in one set and one set was untouched, so was left out. Shot one young brush-rabbit on the W side of

Palmer
1935
Mar. 25
cont'd.

Itinerary

2 mi. NE Upland, Ontario to Paradise Spring

Red Hill, where I also saw two others. Saw about 10 ground squirrels but only got one shot, which was unsuccessful since they are very wary. Birds seen were: California Thrasher, Brown Towhee, Gnatcatcher, Greenbacked Goldfinch, California Valley Quail, Mockingbird, Roadrunner, Calif. Jay, Kingbird, Wrentit, Linnet, Songsparrow and White-crowned Sparrow.

Visited traps again about 4:30 P.M. but they contained nothing and were taken up. Made three sets for gophers in the yard at home 1158 Columbia Ave., Ontario, San Bernardino Co., Calif. Caught one Thomomys in traps between 4:30 and 8 P.M.

About 9 P.M., left home with A. L. Palmer and E. H. Bailey and drove E on Arrow Highway to Rialto, then turned N to the Cajon Pass road (U.S. Highway 66) which was followed thru Victorville. About 3 mi. S of Oro Grande found a dead Dipodomys merriami in the road. Then continued on thru Oro Grande to Barstow where we left U.S. Highway 66 and turned N from the town on a road which went past the Fossil Beds and continued for about 23 mi. to

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Itinerary

Paradise Spring.

Mar. 25 cont'd. Paradise Spring (See map) which was reached only after wandering around on several side roads about 11 P.M.

Mar. 26. Paradise Spring, T. 13N., R. 1E., San Bernardino Co. Calif.

This place is at the base of rocky hills at the upper edge of a long slope. The springs seep out at several places and in these seepage areas are mats of grass and sedges, with a few scattered plants of Sisyrinchium bellum. There were also quite a number of large screw-bean trees, Prosopis pubescens, around the springs. The soil here is very fine and powdery with a thick coating of alkali in some places. Birds seen: Mockingbirds, Linnets, White Throated Swifts, Say Phoebe. The Say Phoebe had a nest in a short water tunnel. The nest was made up largely of fine grass and owl? feathers and contained several downy young. The parent bird fluttered about while we looked at the nest and immediately returned when we left. Remains of dead Meadowlark and Flicker were found near the spring.

Palmer
1935
Mar. 26
Cont'd.

Itinerary

Paradise Spring to Drinkwater Spring.

Left Paradise Spring about 11 A.M. and had driven only a few hundred yds. down the road when a large Dipsosaurus dorsalis ran across the road and stopped under a Creosote Bush (Covillea). I shot it with the 410.

We then continued via Garlic Spring and Bicycle Lake to Drinkwater Spring. This is at the base of a range of mountains — the Granite Mountains. The rather low hills back of the spring are covered with large granite boulders. Around the spring are many large (6-8 ft.) bushes of Covillea. The ground is covered with low annuals, mostly Amsinckia. Farther out from the hill there is less annual herbage and more scattered low bushes of Atriplex, Sarcobatus?, Ephedra and Covillea. Here in a sandy spot shot a Callisaurus ventralis and caught a Phrynosoma. On the rocks saw some kind of Sceloporus and many Utas. Also got a snap-shot at a cottontail but missed. This place designated as Drinkwater Spring, T. 16 N., R. 4 E., San Bernardino Co., Calif.

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Itineary

Drinkwater Spring to Two Springs

May 26 Cont'd. From Drinkwater Spring drove back to the main road at the edge of a large dry lake. Here observed many old gopher sign but could find no fresh workings. Drove on toward Two Springs and at a point about 3 mi. N Drinkwater Spring I found fresh gopher workings in what appeared to be an old lake bed. Drove on thru a narrow canyon, about ½ to 3 mi where a side road turns off 2 mi. to Two Springs and drove to Two Springs where we camped.

Two Springs, T. 17 N. R. 3 E., San Bernardino Co., Calif.

The springs are located at the base of some low mountains at the upper side of a wide valley. There is quite a patch of tall grass around the upper spring with more low grass in the lower part of the seepage. The lower spring has also a good sized patch of tall grass and rushes and a willow tree and two screw-bean trees. From the lower spring there is a long slope down into the valley. This is mostly sandy or gravelly with

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1935

Itinerary

Mar 26 Cont'd. Two Springs.
scattered bushes of Atriplex and Covillea. Here I collected a Phrynosoma, a Callisaurus and a Uta. The latter two were quite common. Near the spring, I found 1/1 dead Wilson Snipe. There were a number of Linnets around the spring.

About 4 P.M. drove back on the road to Drinkwater Spring. It is the place where the fresh gopher workings were seen. Here at 3 mi. N Drinkwater Spr., T. 17N. R. 4E., San Bernadino Co., Calif. made 7 sets for gophers with 10 traps. Then drove back to Two Springs and set 35 mouse traps. About 15 were set in the grass and rushes around the lower spring and the rest were set out on the sandy soil near bushes of Atriplex and Covillea.

Bats flew around the waterhole all evening but I failed to hit any.

Mar. 27 Two Springs, T-11N., R-3E., San Bernadino Co., Calif.
In the 15 traps around the spring caught nothing. In 35 traps out on the sand caught: 2 Dipodomys merriami, 1 Onychomys torridus and 2 Perognathus longimembris.

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Itinerary

Mar. 27 Cont'd. Ivo Springs to Drinkwater Spring & Ontario

Broke camp about 8 A.M. and drove back to where the gopher traps were set. Caught 3 in 10 traps at 3 mi. N Drinkwater Spr., T. 17 N. R. 4 E., San Bernardino Co., Calif. Also caught a Crotaphytus wislizenii Lee, which was put in a can and taken home alive. Turned around and drove back down the cañon toward Ivo Springs. In the cañon which is narrow and lined with fairly steep rocky walls, I caught a Sceloporus magister and in turning over a rock in its pursuit found a Coleonyx variegatus. The Coleonyx "squeeked" when picked up. Both of these were brought home alive.

From here drove via Leach Spring and Granite Well to Johannesburg where we turned south and continued on the way home via Adelanto, Cajon Pass, Muscoy, Rialto, Fontana, Cucamonga to Ontario where we arrived about 2:30 P.M.

Mar. 30 Bear Flat, approx. 6000 ft., San Gabriel Mts., San Bernardino Co., Calif.

Left Ontario about 9 A.M. and drove N via Upland and San Antonio Canyon to

Palmer
1935

Mar. 30
cont'd.

Itinerary

Bear Flat, San Gabriel Mts. (cont'd)

Camp Baldy where we turned off on the Bear Canyon road which was followed about 3/4 mi. to its end. Then hiked up the Old Baldy trail to Bear Flat.

This flat is about 1 acre in area. It slopes moderately to the W down Bear Canyon. A small creek, the beginning of Bear Creek, flows down near the S side of the flat. The flat is covered largely with grass and dead bracken ferns with a small patch of Yerba Santa (Eriodictyon californicum) where the trail crosses the stream. On the S side of the stream, and Rhamnus there are a few scattered Cercocarpus bushes. The flat is surrounded by dense, high brush, mostly Scrub-oak and Ceanothus with some Manzanita and Squaw-bush and scattered Calif. Bay (Umbellularia californica) and Calif. Coffee Berry (Rhamnus californica). At the lower edge of the flat there are several Canyon oaks (Quercus chrysolepis) and one or two large Big Cone Spruce (Pseudotsuga macrocarpa). The soil of the flat is black and deep and quite free from rocks except near the edges.

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Itinerary

Mar. 30 cont'd. Bear Flat, appox 6000 ft, San Gabriel Mts. (cont'd.)
Gopher workings were not very common. Found only two fresh systems. Molls, however, appeared to be common with many surface runways and mounds.
Made 5 gopher sets and 1 mole set with 10 Macabee gopher traps.
In the brush at the edge of the flat were several chipmunks which kept up a constant chirping. Only one was seen. Also saw several gray squirrels on the trail from Camp Baldy.
Examined the first set before leaving and found a ♀ Thomomys in one of the traps. The trap had been set about 45 minutes. Returned to Camp Baldy via the Bear Canyon trail and went back to Ontario by car.

Mar. 31. Left Ontario about 9 A.M. and drove up San Antonio Canyon to Camp Baldy. Then hiked up to Bear Flat. The 10 gopher traps had caught nothing. Heard seven chipmunks in the brush today. It may be too cold and foggy.
Returned to Camp Baldy by trail. On the way saw several gray squirrels and at Camp Baldy saw two

Palmer
1935

Itinerary

Bear Flat, San Gabriel Mts. (cont'd.)

Mar. 31 cont'd. Citellus beecheyi. Found a few mole runways at Camp Baldy but could find no trace of gopher work. Possibly a further search would show them to be present in some of the cultivated areas around the houses.

Returned to Ontario via San Antonio Canyon and Upland.

Apr. 2 Berkeley, Alameda Co., California

Left Ontario for Los Angeles 4:30 P.M. Mar. 31 and left Los Angeles on the train at 6:45 P.M. arriving in Berkeley 10:15 A.M. April 1.

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DESERT KING SPR.
DRINKWATER SPR.
GRANITE MTNS.
DRY LAKE
LEADPIPE SPR.
AVA MTNS.
4985 Dome Mt.
Klinker Mtn.
Pilot Pk.
Eagle Crags 5501'
GRANITE WELL
JOHANNESBURG EL. 3536'
RANDSBURG EL. 3523'
Red Mtn.
Atolia
BLACKWATER WELL
PILOT SPR.
ABANDONED Copper City
INDIAN SPR.
GOLDSTONE LAKE
ABANDONED Goldstone
Slocum Mtn. 5127
SEABERS WELL
SUPERIOR VALLEY
INSCRIPTION CANYON
CUDDEBACK LAKE
BICYCLE LAKE
TIEFORT MTN.
RED PASS WELL
RED PASS LAKE
Silver Lake EL. 909'
SILVER LAKE
SODA LAKE MTNS.
CRONISE VALLEY
WEST CRONISE LAKE
EAST CRONISE LAKE
Cronise Sta.
Cat Mtn.
Beacon Sta.
ALVORD MTNS.
PARADISE SPR.
LANGFORD WELL
Fremont
Fremont Pk. 4604'
Penshaw
Opal Mtn. 3973'
Black Mtn. 3941'
ABANDONED Coolgardie
BLACK CAN.
HARPER LAKE
COYOTE LAKE
COYOTE WELL
CAVE MTNS.
Midway
Dunn
Afton
Baxter
Crucero
MOJAVE RIVER SINK
Kramer
Jimgrey
Hawes
Hinkley
BARSTOW EL. 2106'
Kramer Hills
Mace
Lenwood
Calico
CALICO MTNS.
Harvard
Manix
Field
Mesquite
Nebo
Toomey
VERMO EL. 1935
Gale
Minneola
DAGGETT EL. 2002'
INSPECTION STA.
Newberry Springs
Troy Lake
Troy
Hector
Mojave Water Camp
Pisgah
Lava Flow
Mt. Pisgah Crater
Argos
LUD
TOPOPAH
Broadwell
DRY LAKE
CADY MTNS.
Hodge
Wild
Helendale
Mojave River
STODDARD WELL
SWEETWATER SPR.
KANE SPR.
ORD MTNS.
GRANITE
Bryman
MIRAGE LAKE
El Mirage
SIDEWINDER WELL
EL. 2630'
ORO GRANDE
Adelanto
VICTORVILLE EL. 2716'
MTNS.
LUCERNE LAKE
LUCERNE VALLEY
Thorn
DEADMANS POINT
Lone Wolf Colony
Lucerne Valley P.O.
Phelan
Millers Corner
HESPERIA
MESA
BALDY
TO PALMDALE
TO LANCASTER
TO MOJAVE
TO INYOKERN
TO BALLARAT
TO GOLER
WASH
TO DEATH VALLEY
TO DEATH VALLEY JCT.
AMES WELL
COTTONWOOD SPR.
OLD WOMAN SPR.
BOX S SPRINGS
CUSHENBURY SPR.
ROCK CORRAL
RICH'S WELL
SURPRISE SPR
WINDMILL TANK
WARREN'S WELL
WARREN'S TANK
Morongo Valley P.O.
QUAIL SPR.
TO BANNING
TO LOST HORSE WELL
TO LIVE OAK
TO BEAUMONT
TO RIVERSIDE
TO LOS ANGELES
TO CORONA
TO PRADO
TO OLINDA
SUMMIT CAJON PASS EL. 4300'
Lugo
Summit
Camp Cajon
Cajon
Cozy Dell
Mt. San Antonio Old Baldy EL. 10080'
Bear Flat
Mt. Baldy Resort
Glenn Ranch
Cucamonga Pk. 6911'
Devore
Verdemont
Arrowhead Springs
SAN BERNARDINO MTNS.
Lake Arrowhead 5100'
RESORTS
Crestline
Skyforest P.O.
Green Valley Lake
Big Bear Lake
Baldwin Lake
Fawnskin P.O.
Pine Knot P.O.
Doble
UNION FLAT
BIG FLAT
SEVEN OAKS
BRADFORD CAMP
BURNS WELL
BARTON FLAT
BIG MEADOW
FOREST MTNS.
San Gorgonio Mtn. EL. 11485
Forest Home
Mentone
Yucaipa
Loma Linda
Brynmawr
Del Rosa
Patton
Muscoy
SAN BERNARDINO
HIGHLAND
Etiwanda
FOOTHILL BLVD.
ARROW HWY.
Fontana
Cucamonga
Bloomington
Rialto
Upland
ONTARIO
COLTON
Guasti
SOU. PAC. R.R.
Crestmore
CHINO
EL. 1073'
EL. 1300'
EL. 1350'
HIGHLAND
East Highlands
Harlem Spgs.
REDLANDS
CARBON CANYON
STATE BIRD & GAME FARM
Route Mar. 25-27
Route Mar. 30+31
Localities where Thomomys were trapped
X = Camps

Road Map

OF

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Thomomys bottae

Red Hill, 1350 ft., 2 mi. NE Upland, San Bernardino Co., Calif.

Mar. 25. Caught 5 I. b. pallescens in 5 sets (10 traps) set in evening of Mar. 24. All traps were set in burrows in deep, heavy, black, peaty soil on the E slope of Red Hill. The field had apparently not been cultivated for several years and was overgrown with a rank growth of Brassica nigra, Avena fatua, Avena sativa, Erodium moschatum and Medicago hispida(?).

In one set took two gophers both in the same burrow. These (Nos. 338 and 340) were apparently young.

1158 Columbia Ave., Ontario, San Bernardino Co., Calif.

In 3 sets made in the yard at my home caught 1 gopher between 4:30 and 8 P.M. This gopher had dragged fresh cuttings of bur clover (Medicago hispida) down into its burrow. The soil here is brown loam, much different from the Red Hill locality. Elevation here is about 1000 ft.

Bear Flat, approx. 6000 ft., San Gabriel Mts., San Bernardino Co., Calif.

Mar. 30. Caught one ♀ in 5 sets of 8 traps. This specimen was taken in a burrow

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Thomomys bottae

Bear Flat, approx. 6000 ft., San Gabriel Mts., San Bernardino Co., Calif. - (Cont'd.)

Mar. 30 (Cont'd) which was open when the trap was set about 11 A.M. The trap was examined about 45 min. later and the gopher was found in the trap.

The flat is about 1 acre in area and slopes at an angle of about 30° toward the west. A small stream flows across near the S side of the flat. The soil is black and is surprisingly free from rocks, except near the edges.

For the most part, the flat is covered with short grass and dead bracken ferns. Where the trail crosses the stream, is a small patch of Eriodictyon californicum. On the south side of the stream are a few scattered bushes of Cercocarpus and Rhamnus californica. Most of the gopher work was found near these bushes but gophers are apparently rare here. Only 2 occupied systems were found.

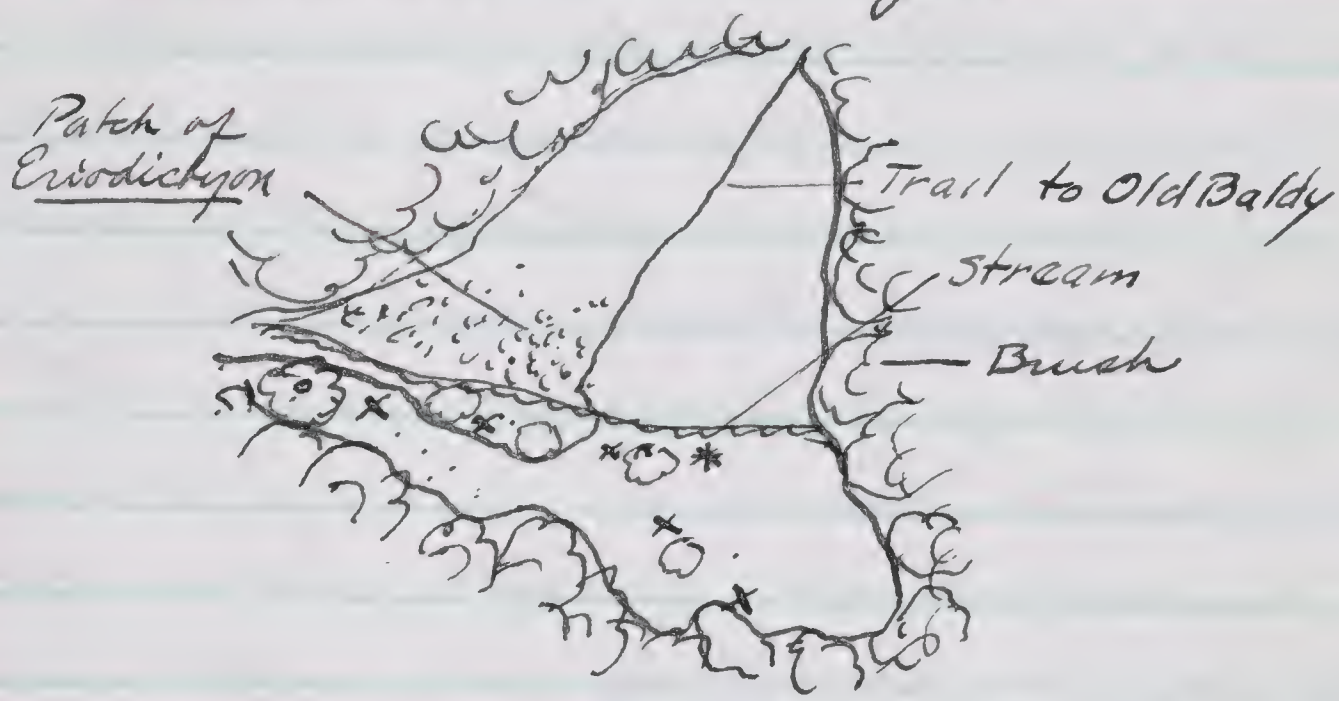
The flat is surrounded by dense high brush: Ceanothus, Manzanita, Rhamnus californica, Scrub-oak with scattered larger trees - Umbellularia californica, Quercus chrysolepis and Pseudotsuga macrocarpa

Palmer
1935

Thomomys bottae

Bear Flat, approx. 6000 ft., San Gabriel Mts., San Bernardino Co., Calif. (Continued)

May 30 (cont'd.) The specimen taken was very fat but contained no embryos.



Rough sketch map of Bear Flat.
× = Gopher set
* = Mole set.

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1935

Thomomys perpallidus

3 mi. N Drinkwater Spr., T. 17 N. R. 4 E., San Bernardino Co., Calif.

Mar. 27 Caught 3 in 6 sets (10 traps). All gopher "workings" were found in what is apparently an old lake bed. Plant life on it is rather sparse with a very few large old Covillea bushes and a few low annuals, mostly Amsinckia sp.

Mounds were quite large — 12-24 in. across and 4-6 in. high. These were commonly directly over the main runway and followed a line at rather regular intervals. ooooooo

There were many old mounds, some broken in and washed by water and it is possible that the gophers may have been "drowned out" by heavy rains this winter.

Soil here is deep very fine, almost silty, brown, and quite moist only an inch or two below the surface

Palmer
1935

Perognathus longimembris

Ivo Springs, T. 17N. R. 3E. San Bernardino Co. Calif.

Mar. 27 Caught 2 in 35 traps. Both taken on coarse sand with scattered large bushes of Atriplex and Covillea. These specimens may have been feeding on the small, low annuals, since they had waxy pollen all around their mouths and cheek pouches.

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Perognathus californicus

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif.

Feb. 27. Caught one ♂ in 51 traps. The one was taken in mixed Artemisia and Baccharis on the south side of Sugarloaf. The hillside was rather steep and was almost bare beneath the bushes.

Palmer
1935

Dipodomys merriami.

Mar 25 3 mi. S Oro Grande, Mojave Desert, San Bernardino Co., Calif.
Found a specimen dead in the center of the road. It was night so couldn't see much of surrounding country except that the ground was sandy with ~~with~~ scattered low shrubs. (Specimen discarded)
Two Springs, T. 17 N. R. 3 E., San Bernardino Co., Calif.
Mar. 27 Caught 2 in 35 traps set on coarse sand & gravel with scattered large bushes of Atriplex and Covillea. Holes which I assumed to belong to this species were fairly common, usually under the periphery of some bush.

Palmer
1935

Onychomys torridus

Two Springs, T. 17 N. R. 3 E. San Bernardino Co. Calif.

Mar. 27 Caught one in 35 traps. It was taken on coarse sand beside a large Atriplex bush. There were a few Covillea bushes in the near vicinity and some very small annuals (undetermined). The specimen was a ♂ with testes somewhat enlarged.

Palmer
1935

Reithrodontomys megalotis

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif.

Feb. 27 Caught 3 in 51 traps. All were ♂. One was taken on a rather steep south facing hillside in Artemisia. This trap was at least 100 ft from any grass. The other two were taken in short grass on the W side of the peak. One was taken in a Microtus runway. The other was caught in a trap set by the opening of a small burrow about 1 in. in diameter. From this burrow there was a series of rather poorly formed small runways extending out into the grass.

Palmer
1935

Peromyscus truei

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif.

Feb. 27 Caught one ♀ in 21 traps. Taken on a raked step, south facing hillside in mixed *Artemisia* and *Baccharis*.

Palmer
1935

Peromyscus maniculatus

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium, Berkeley, Alameda Co., Calif.

Feb. 27 Caught 2 in 51 traps. Both were taken on a rather steep, south facing slope in mixed *Artemisia* and *Baccharis*.

Palmer
1935

Microtus californicus

Sugarloaf Peak, 1300 ft., 1 mi. E Stadium,
Berkeley, Alameda Co., Calif.

Feb. 27 Caught 4 in 51 traps. These were:
3 adult ♀♀ and one immature (sex?)
All were taken in extensive runways
in the short grass on the W side of
the peak. Most of the runways were
old and for the most part, passed
thru dry grass. There were numerous
burrows in these systems but not all
showed signs of occupation. Cut grass
was found in only a few places in the
runways and only one spot was found
where there were any feces. This spot
had evidently been in use for some time
as the feces were rather thickly piled
over the small bare area at the end of
a short runway. Two of the ♀♀
contained embryos. One had six 28 mm.
embryos, the other had four 10 mm.
embryos. One ♀ discarded also appeared
to be pregnant.